

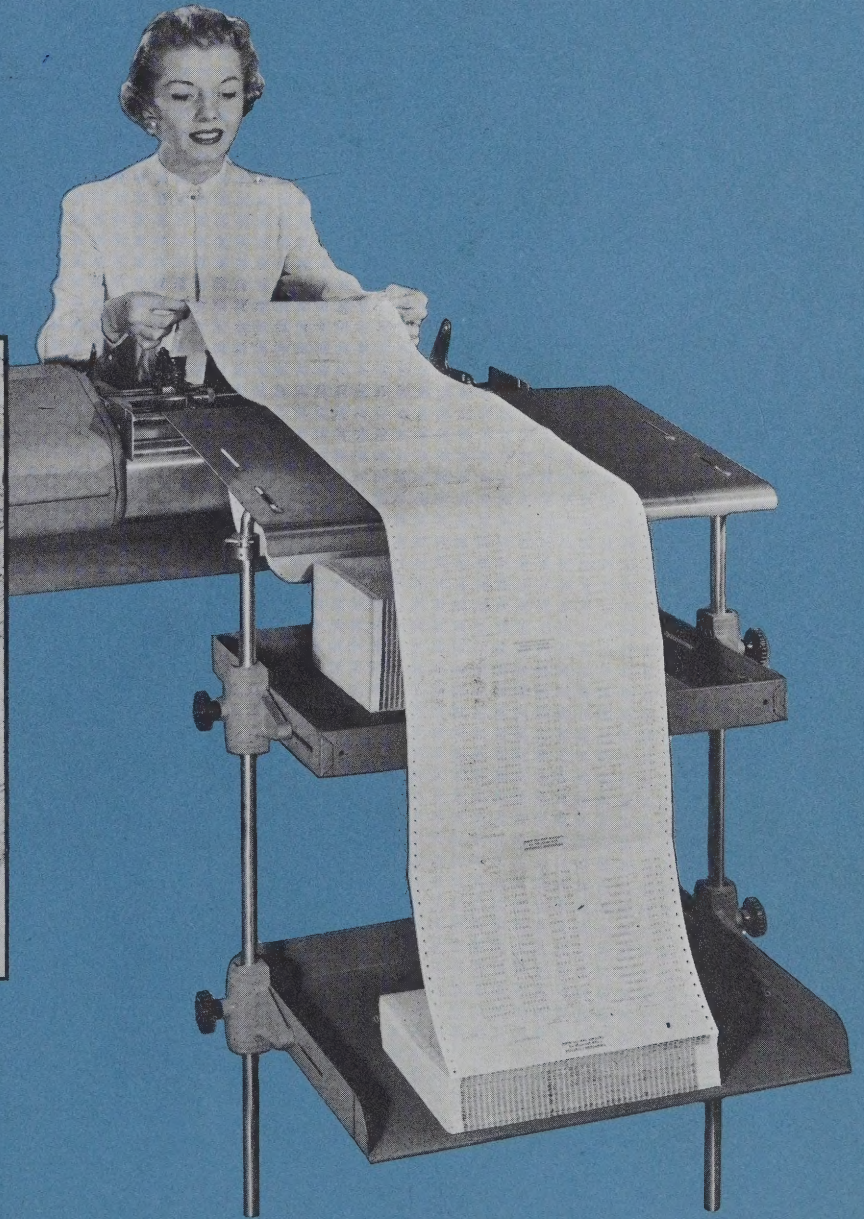
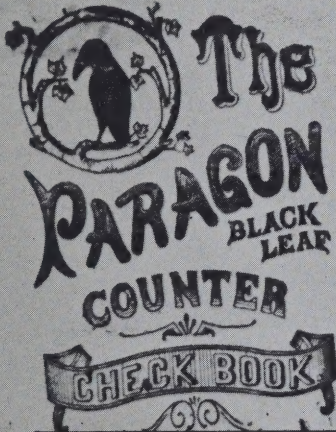
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THE MOORE STORY

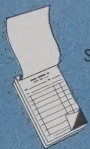
Business Control Through Multiple Copy Forms

1882

1957



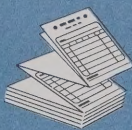
THREE QUARTERS OF A CENTURY OF MOORE BUSINESS FORMS



Sales
Books



Continuous
Forms



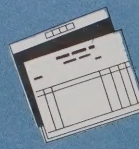
Register
Forms



Registers



Fanfold
Forms



Speedisets



Marginal
Punched
Forms

THE MOORE STORY

1882-1957

Business Control Through Multiple Copy Forms

OPERATING SUBSIDIARIES

BUSINESS FORMS

MOORE BUSINESS FORMS, INC., IN THE UNITED STATES

MOORE BUSINESS FORMS LTD., IN CANADA

MOORE BUSINESS FORMS de MEXICO, S.A. de C.V.

PAPER BOXES

F. N. BURT COMPANY, INC., BUFFALO, NEW YORK

DOMINION PAPER BOX COMPANY, LIMITED, TORONTO, CANADA

MACHINERY AND EQUIPMENT

KIDDER PRESS COMPANY, INC., DOVER, NEW HAMPSHIRE

MOORE CORPORATION, LIMITED

330 UNIVERSITY AVENUE, TORONTO 1, CANADA



Office operations in the 1880s and in 1957



The Moore Story

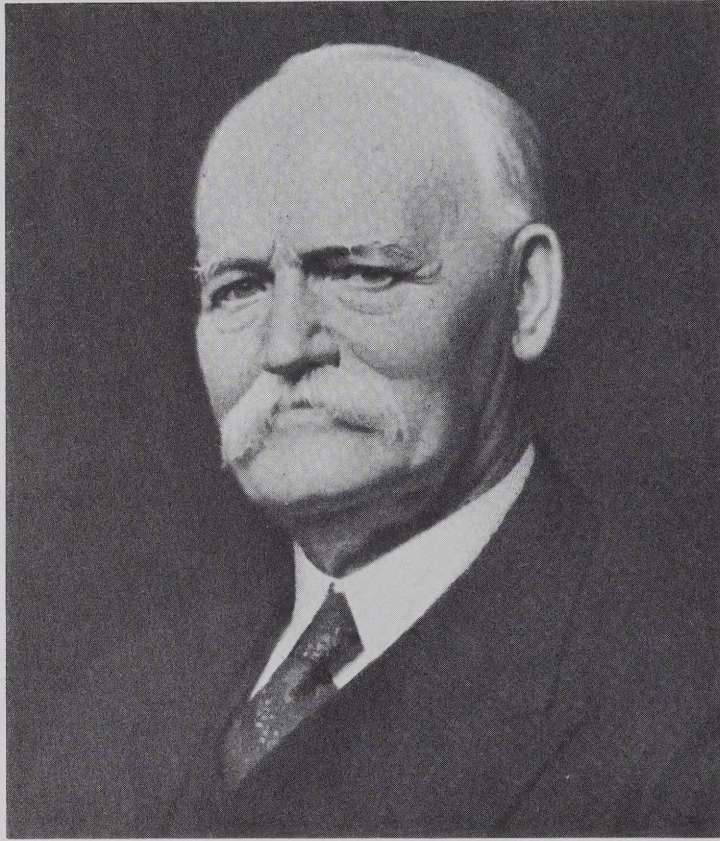
ACKNOWLEDGMENT

AS INDEPENDENT OBSERVERS, the authors examined thousands of pages of historical documents, interviewed dozens of active and retired employees and took hundreds of hours of executive time. We were asked to write THE MOORE STORY as it appeared to us, and this we have done. We are sincerely grateful for the cooperation and encouragement we received everywhere in the Moore organization. Among other sources, officials of business machine manufacturing companies have also provided historical material, counsel and many hours of their own time. To all, we wish to express our appreciation.

There is not enough space for us to begin to mention the many people who played important roles in building Moore Corporation, Limited. We arbitrarily decided, therefore, to name only chief executives and a few individuals who have reached the age of retirement.

We regret that we cannot give full credit to all Moore employees by name, but we are mindful of the deep gratitude of management for their loyal and constructive services.

DUDLEY L. PARSONS
PETER SUDARSKY



SAMUEL J. MOORE
Founder of the business forms industry

"Success is to have done that which has benefited the largest number of people and which, when you have finished your work, has left the world better because you have lived in it." . . . Samuel J. Moore

By his own definition, he was a successful man. The industry he founded employs thousands of individuals and has contributed in countless ways to the growth of commerce. He contributed most of his own wealth to church and charity.

Born in 1859 in England, he died at his home in Toronto on April 23, 1948.

Three Quarters of a Century

THE STORY of the forms industry is, in a very real sense, the story of the development of business procedures. In its first three quarters of a century, the industry has contributed to advances and reflected changes in methods from the early days of tedious hand copying by gaslight to today's high-speed electronic data processing. One-man business operations of the past, where the boss kept all the information in his head, have been supplanted by large, integrated organizations in which speedy and accurate preparation of records is a necessity.

The production and distribution of business forms has become one of the most significant yet least known industries in the United States and Canada. The industry touches the life of each of us, every day, in many ways. The car we drive is assembled on a production line directed with the aid of business forms. A simple purchase in a retail store, a telephone order to a downtown department store and a charge sale at a nearby gasoline station are all controlled by business forms.

By pioneering new methods for accurate records and efficient controls, the forms companies have facilitated beyond measure the growth of North American commerce. The principle of "one writing for many purposes," introduced into business systems by the duplicating sales book, has increased speed and accuracy in handling business records.

The business forms industry began in Toronto, Canada, 75 years ago with the founding in 1882 of a small company which has since developed into Moore Corporation, Limited. Through its subsidiaries, Moore Business Forms, Inc., in the United States, and Moore Business Forms Limited, in Canada, it is the largest manufacturer of manifold forms in the world. Samuel J. Moore is recognized as the founder of the industry. Most of the different types of forms produced today were initiated and developed, in full or in part, by his affiliated companies.

How a little sales book company in 1882 started a new industry and grew into Moore Corporation, Limited, is the subject of this brief story. It includes the decisions and policies which have made this Corporation the leader in the industry during its first three quarters of a century.

Origin of an Industry

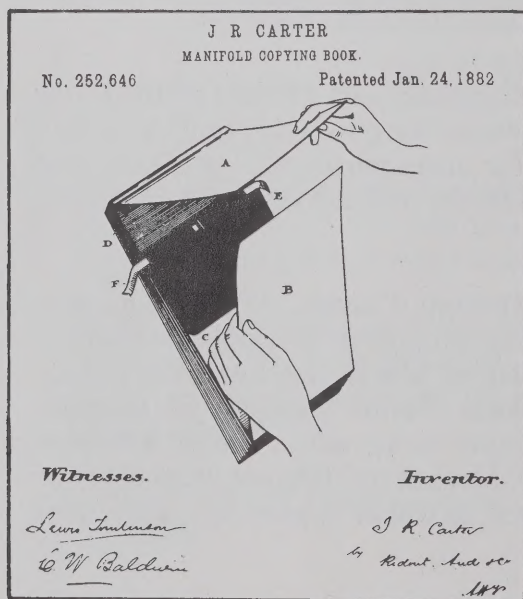
"A nation's history is recorded in its transactions. There you will find the adventures of the explorer, the spirit of the pioneer, the enterprise and foresight of statesmen and industrialists."

ON A MORNING early in the year 1882, Samuel J. Moore, only 22 years old and business manager of the Grip Printing and Publishing Company in Toronto, was working in his office when in walked a clerk from the silk department of the nearby John Catto dry goods store. John R. Carter carried with him what at first glance looked like a small pad of paper. Actually, it was a duplicating sales book. Carter hoped to interest young Sam Moore and his company in

producing his new kind of sales book, in which a single sheet of carbon paper attached to the stub was inserted between two pages to give both customer and store proprietor a record of a transaction.

In those days, even large department stores were using nonduplicating books. Although carbon paper was known, its use was still very limited. Merchants often had no system to insure that the money from cash sales was turned in by clerks rather than pocketed. A charge sale then could be a complicated affair and often subject to dispute.

Moore was not the first person to whom Carter had shown his sales book idea, but he was the first with the imagination to visualize its possibilities. His judgment at the age of 22 in assessing the value of an accurate sales-checking system is all the more remarkable in view of the casual retail customs of the times. Retail-



The sales book gave to thousands of merchants throughout the world control and protection in their operations. The accurate numbering of each sales slip enabled store owners to check each sale and to detect "forgotten charges" which previously could not be traced. With one writing, the book gave the customer a receipt and the merchant a record of both cash and charge sales. This patent drawing and cover show the first *Paragon* sales book. A tape was fastened to the lower end of the carbon (or black leaf as Moore called it) so that it might be lifted without soiling the fingers.





The interior of Marshall Field & Company, Chicago, in the 1880s is pictured during the transition from leisurely shopping to mass merchandising and impersonal counter selling. Among progressive stores like Jordan Marsh of Boston, Woodward & Lothrop of Washington, John Wanamaker of Philadelphia and Saks of New York, Marshall Field became a customer for the duplicating sales book upon its introduction to the United States and has continued to be highly progressive in the adoption of improved methods, efficient systems and effective controls. The first sales book gave the customer a receipt and the store a record. Today a sales book is a management tool which can provide multiple records to control inventory, delivery, billing and sales commissions. In conjunction with business machines, it supplies the daily record of accounts receivable, cash sales and total sales. Other duplicating forms, frequently used with modern business machines, control purchases, payrolls, tax records, production systems and management records in government, business and industry.

ing then was an easygoing, leisurely relation between merchant and customer, and nothing suggested that sales books were to become an absolute necessity as stores grew larger, selling became more impersonal and fixed prices supplanted traditional trading practices. It was an era of small shops, and a trip downtown for the average housewife was a social event as well as a buying trip. Friendly merchants had plenty of time to chat while writing down a customer's order and checking off the goods as they were delivered to the counter. Later they posted the record into a ledger. Such business tools as the telephone, billing machine, sales register, typewriter, adding machine and cash register were either unknown or rare.

But Moore sensed the technological changes then developing. A mushrooming network of railroads was creating opportunities for wide distribution of manufactured goods. Factories were increasing in size to serve larger markets, and cities were growing as migrant labor from the country and abroad came to fill industrial jobs. Moore foresaw expanding opportunities for mass merchandising and recognized the need for accurate records to control sales.

Moore acquired rights to produce the sales book and hired Carter as his first salesman. He started production in 1882 at the Grip plant,

marking the start of the modern business forms industry on the North American continent and in the world.

Some merchants resisted using the sales book, considering it a reflection on the honesty of trusted employees, but Moore soon discovered that many store owners welcomed the sales book as a valuable addition to their business procedures. It was called the *Paragon*, a standard of excellence.

The sales book made revolutionary changes so long ago that few people today know how inadequate and cumbersome old methods of keeping records were. Many large stores had required hand copying of each transaction into a ledger at the end of the day. In one widely used charge-sale system, the customer carried a pass book similar in style to a bank deposit book; the amount of each credit sale was recorded in this pass book by the store salesman, who then recorded the sale a second time in his own record book, from which it was copied a third time into the store's general ledger and in some cases a fourth time onto the customer's statement. But once integrated into store procedures, the sales book gave to thousands of merchants new means to protect and control operations. Sales checking was made possible through the introduction of serial numbers on each sales

slip. These numbered slips identified transactions and enabled merchants to verify each sales record with the person who made the sale. Comparative studies of profits by departments increased efficiency in large department stores. Carbon copies aided accuracy by eliminating tedious hand copying with accompanying opportunities for error. The duplicate slip was retained by the merchant and provided an accurate record of charge sales without additional writings.

The success of the sales book and the need for improved methods of recording business transactions were to lead to the invention of many other kinds of multiple-copy products to supply not only the retail trade but also manufacturing, transportation, banking and government. In this development, the companies which became Moore Business Forms continued to be the originators and leaders.

It should be recorded that sales books, both duplicate and nonduplicate, were used in rudimentary form before the *Paragon* check book was invented and placed on the market. However, the *Paragon* was the first sales book with carbon paper bound into the stub to have also consecutive numbers on the sales checks, suitable binding enabling the book to be easily

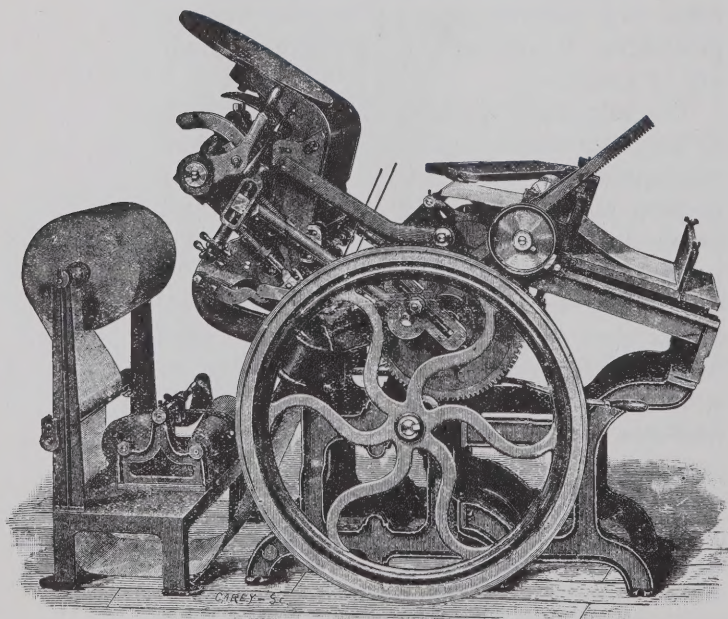
handled, and a printed form for recording the amount of each sale.

Specialized Machinery

Moore recognized that the sales book could not sell itself but needed salesmen who understood business procedures to explain its applications. He actively sought specialized machinery to lower production costs so that he could employ top-caliber salesmen. Initially, production methods at Grip on conventional printing equipment were awkward and expensive. Fifty numbered pages were printed, one page at a time, and were then hand collated, cut, assembled, and hand stitched by women employees in the "bindery."

"Before the book was finished," Moore recalled in 1917, "each sheet of paper was handled 13 different times in as many different operations. You can quite understand, therefore, that it was necessary to obtain prices which today would make our salesmen's eyes turn green with envy

"I learned," continued Moore, "that the Kidder Press Manufacturing Company of Boston had produced a small automatic press for printing from rolls instead of sheets at a



Two Kidder presses, purchased by S. J. Moore in 1882 and similar to the one in this drawing, reduced hand operations and sales book production costs by 75 per cent. Powered by steam, and including fountain, extra rollers, feeding apparatus

and numbering mechanism, each cost \$600 and printed 2,800 impressions per hour.

This press was the invention of Wellington Parker Kidder, a pioneer in the development of self-feeding presses, which print on rolls of paper instead of hand-fed individual sheets. Kidder claimed, "It is as unnecessary that a pressman should stand for eight to ten hours a day to execute the monotonous and purely mechanical movement of putting in and taking out the sheet, as that cotton should be spun by hand or woven by foot-power."

Kidder Press Company, Inc., was founded in 1876 and was purchased by Samuel J. Moore in 1899 as a source of automatic equipment for sales book production. The company was moved from Boston to Dover, New Hampshire, in 1900. Sales registers, *Formaliners*, decollators and other forms-handling equipment in addition to presses are manufactured at this location for Moore Business Forms.

The genius of the Kidder organization has always been its ability to devise machinery for special purposes. In the packaging field, the great majority of all multicolor breadwrappers and much of the transparent film used in packaging in the United States and Canada are printed by Kidder equipment. Current noteworthy products include an eight-color high-speed rotary letterpress for breadwrapper printing and special presses for printing with volatile liquid inks on flexible film.



The first Moore plant in the United States was completed in Niagara Falls, New York, in 1884. It was a small frame building, 40 by 60 feet before the wing at the right was added. Known as "The Bindery" to townspeople, it was the world's first plant devoted exclusively to the manufacture of sales books, then called counter check books.

Power was supplied by a wheel in the hydraulic canal to the nearby Cliff Paper Company. A 400-foot rope cable between the Cliff Paper Company and the Carter & Company plant was attached to a pulley at the end of a shaft from which leather belts ran to all the presses.

Although it didn't seem too funny at the time, one amusing incident occurred when the cable slipped off the pulley and pulled the main shaft with it. John Clark, one of the early press operators in Niagara Falls, recalled that the belts driving the heavy machinery were carried away and the shaft struck the cross building beam. The building began to shake and weave, and all the workers hurried outside. A short time later, S. J. Moore in Toronto received a telegram from Niagara Falls, "THE CABLE HAS BROKEN. WHAT SHALL WE DO?" He wired back, "GET A NEW ONE."

rapid speed, and on the day that I learned this I took the train for Boston to interview Mr. Kidder, and before leaving that city had placed an order for two of the machines." A short time later in the Grip plant in Toronto, Moore installed two steam-powered Kidder presses which printed, numbered, perforated and folded sheets individually, and produced books ready for binding. "Handling operations were reduced from 13 to four," said Moore, "and the cost of manufacturing was immediately reduced by at least 75 per cent."

The ticket which carried young Sam Moore on a steam train to Boston proved a significant investment for the young entrepreneur. Lower costs resulting from automatic production methods enabled his company's salesmen to sell nationally in competition with local printers. Moore salesmen were free to concentrate on becoming expert in store systems, thus laying the foundation for the system planning service which has helped thousands of companies find methods to control growth and expansion.

System planning service is one of the oldest traditions of the industry, a tradition continued today by more than 1,600 members of the Moore sales and service staff. Their knowledge of business systems, operating procedures, form design and specific form needs of business machines is one of the Corporation's major assets.

The ticket to Boston also marked the beginning of a friendly and sound business relationship which culminated in the purchase of Kidder Press by Moore and his associates in 1899. The acquisition gave the Kidder company an outlet for its talents in designing specialized presses and gave Moore an opportunity to develop automatic equipment for the mass production of business forms at economical prices.

Opportunity to the South

Once the sales book end of the Grip Company was operating successfully in Canada, Samuel J. Moore looked south. Thumbing through an atlas, he was amazed to discover the large num-



One of the earliest "sewing machine" typewriters in the 1880s, this model was the forerunner of today's Remington Rand line of business machines. Evolution of the business machine and forms industries has been parallel. Developments in each helped the other in meeting the documentary needs of a growing economy. New machines increased uses of forms, and new forms increased usefulness and sale of many business machines.

ber of cities in the United States with populations of more than 50,000. These cities had stores, and these stores needed sales books—maybe. Spread out before him was the vast United States market, just waiting—perhaps—for the *Paragon* sales book. A young Irishman, Thomas McDowell, was employed at that time as a salesman for Grip. He made a trip to Detroit carrying samples and succeeded in selling 1,000 *Paragon* books for \$100. Even after payment of the high duty, a satisfactory profit remained.

McDowell's experience gave Moore reason for thought. At the Grip plant in Toronto, the production of sales books was only one of several specialties. What about the possibility of a factory in the United States, equipped with automatic machinery and devoted exclusively to sales books?

"I recollect very clearly one evening after dinner sitting quietly at home reviewing my experiences," Moore stated at the fortieth anniver-

sary of the Company, "when suddenly the conviction came to me that the combination of the improved book, the automatic machinery and the great United States market presented an opportunity for establishing a business which would ignore the miscellaneous products of a printing company and confine itself entirely to the producing of sales books. Of course, at this time I had no idea of what the ultimate development of the sales book and its accessories would lead to, but I caught a vision of the possibilities and proceeded with the enthusiasm of youth to make the vision come true.

"I immediately sought to interest four gentlemen who were at the time Directors of the company of which I was Manager, namely James L. Morrison, George A. Clark, James W. Bengough and Thomas Bengough, all of Toronto. With some persuasion I succeeded in getting them to join with Mr. Carter and myself in forming a syndicate with a potential capital of \$10,000. I use the word potential advisedly because only a portion of this amount was furnished, but a sufficient amount from each was forthcoming to justify ordering five Kidder presses for the first plant."

Moore believed Niagara Falls was an ideal location for the new plant because of its proximity to Toronto and its abundant supply of inexpensive power. He and Morrison visited the Falls together and negotiated with Arthur Schoelkopf, head of the Niagara Falls Hydraulic Power Company, a lease of some land and a contract for 25 horsepower per year at a price of \$10 per horsepower per annum.

A deposit in the name of the new company was placed in a local bank in November, 1883, and the world's first plant entirely devoted to the production of a business form, called Carter & Company, in honor of the *Paragon* book's inventor, began production shortly after the New Year in January, 1884.

Shoe Box Era

"For the first few months Carter did all the selling," Moore recalled at a 1917 convention. "On the day he brought to us the first order from John Wanamaker of Philadelphia, we felt almost as proud as did the airman who brought down the first Zeppelin." Among other first-year customers were such famous stores as

Woodward & Lothrop in Washington, Marshall Field in Chicago, Jordan Marsh in Boston and Saks in New York City. But success creates its own problems, and one of these was where to find the additional capital to meet expansion requirements as new orders taxed facilities. The cash report on February 2, 1884, just one month after operations had commenced, showed 60 cents in the bank and \$4.47 on hand.

Two choices were considered: limit growth and finance expansion solely out of earnings, or sell stock to obtain new capital and speed expansion by purchasing new equipment.

Moore and Morrison were in favor of raising new capital. They believed quick action was necessary to maintain the company's competitive position against large printing houses eyeing the sales book field. Carter favored the slower method of financing expansion out of profits only.

Unable to resolve this policy disagreement, Carter offered to sell his quarter interest, and Moore and Morrison accepted his offer. It is not part of the Moore story, but what became of Carter has been a subject of conjecture. He is said to have set out for Colorado where he acquired an interest in a silver mine, only to sell out a short time before a big rise in the price of silver. His next venture was growing oranges in California, but again he sold out, this time only a short time before a big eastern market developed for California oranges. He was last heard from shortly after the turn of the century in Alaska. He would have earned several hundred thousand dollars within a few years in sales book royalties alone had he retained his interest.

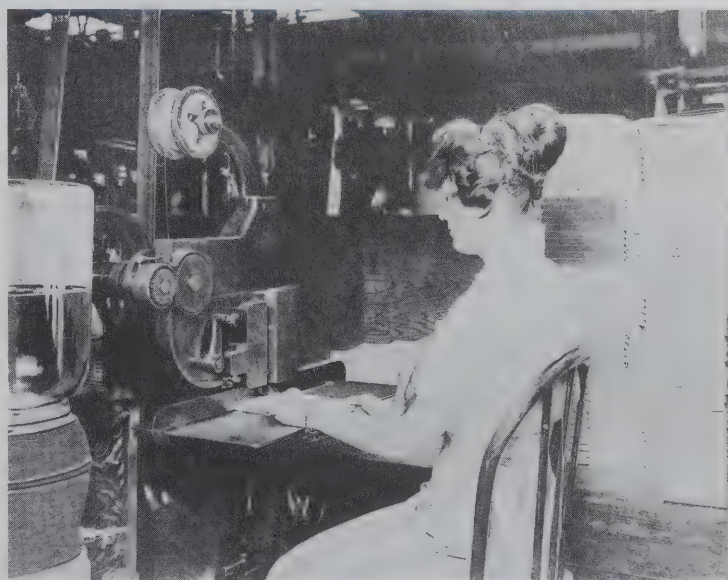
New capital was added to Carter & Company through the sale of stock. Equipment was purchased and the plant area doubled by the addition of a new wing in 1886, only to be doubled again in 1888 to meet the burgeoning demand for sales books.

During this period, employees of Carter & Company each day toured stores in the Niagara Falls shopping district in search of empty shoe boxes and other containers to use for packing and shipping sales books. But Samuel J. Moore was an entrepreneur at heart, and it was not long before he had the plant night watchman making boxes in his spare time. Moore then sold the overflow box' production to shoe stores and other merchants in Niagara Falls.

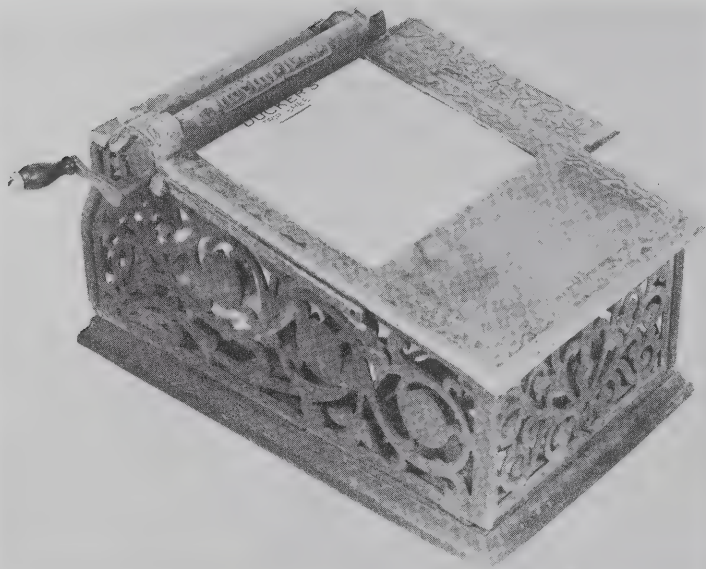
Meanwhile, Moore found time to travel to London, England, where he established the Lamson-Paragon Supply Company to manufacture the sales book. This company, in turn, quickly established plants in Germany, Austria, France, Holland and Australia. The Lamson Company and its overseas subsidiaries were independent of Moore's North American sales book interests. However, the success of these companies demonstrated that the sales book idea was sound in any language. No official tie exists today between the two companies founded by S. J. Moore on both sides of the Atlantic Ocean, but executives of both companies still continue an informal association to facilitate the exchange of technical information.

Influence of Samuel J. Moore

Samuel J. Moore, the founder of the sales book industry, was born in Doddington, Northamptonshire, England, in 1859 and at an early age absorbed the deep religious convictions of his parents. He emigrated to Canada with his family in 1861 and settled in Barrie, Ontario. The formal education of twelve-year-old Samuel



"Bindery Girl" assembles sales books with one of the first automatic wire-stitching machines imported from Germany. The wire replaced hand stitching with needle and thread. In 1905, an early financial backer of Carter & Company, J. L. Morrison, had seen this machine at an exposition in Europe. S. J. Moore, quick to appreciate new ideas, placed an order at once. The first automatic stitching machine in North America, it was introduced into the Toronto plant in 1906. The next year more were purchased for the American units.



The *Invincible* register of 1890 used rolls of printed forms running across a writing surface, with carbon fed from the side. Four or five turns of the small crank were required to eject the forms from the heavy brass machine, and each set of forms had to be hand aligned before use.

The *Invincible* was the first in a line of machines which enabled Carter & Company to compete in the roll-register line. Roll forms were replaced in 1921 by the continuous, interfolded or flat-pack, zigzag form, when William J. Wiswall adapted the



continuous sales book to use in the *Wiz* register. A forerunner of the continuous forms used in tabulating and business machines today, the new zigzag form simplified machine loading, eliminated curling of the forms, allowed easier auditing of records and soon outmoded the roll-type registers.

The interfolded form used in Moore registers today provides the fastest known method of preparing handwritten business records. A late model Moore electric register is shown above.

was already ended when he started work as a printer's "devil" on the *Barrie Examiner* to help support his family. He not only learned the technical end of the printing business but was also a frequent contributor to the news columns. His association with the Grip Company and the sales book was the result of an accidental meeting with one of Grip's directors at a conference of Baptist laymen.

During the early years of the sales book, Samuel J. Moore never sat down to write the policies which were to guide the Moore organization through its first three quarters of a century. Nevertheless, he succeeded in establishing many of the basic concepts upon which the Corporation has evolved:

1. He actively sought *wide geographical coverage* from the Atlantic to the Pacific Oceans.

2. He encouraged the *autonomy* of each operating unit.

3. From the earliest days, he recognized the requirements of the industry for a high-caliber *sales force capable of planning systems* as well as selling products.

4. By his insistence on specialized mass-production equipment, he established the production of sales books as a *separate industry*.

A man of strong character, Moore naturally attracted men like himself to participate in his company. *Character* in its leadership has been a factor in the company's progress throughout its history.

Expansion and Development

"At every stage of the Sales Book Industry, from its beginning up to the present, success was dependent upon critical decisions that called for vision, understanding and character."

... from *Samuel J. Moore and the Sales Book Industry*, a book prepared by the Sales Book Manufacturers Association for presentation to Mr. Moore upon the fiftieth anniversary of his founding the sales book industry in the United States.

CARTER & COMPANY'S early success attracted wide interest in the United States and Canada and induced many printing companies to begin the manufacture of sales books. Some were successful and became worthy competitors; others fell by the wayside. Still others were acquired by Moore and his associates, adding to the Company's range of products, territory and personnel.

In 1886, two strong competitors both began marketing improved versions of the original *Paragon* book. In Detroit, Michigan, a firm operating under the name of Hurlburt, Frink & Company entered the field with the Frink book, somewhat similar to the *Paragon* but more compact.

The continuous book, the first major improvement in the sales book, was introduced to the retail trade in the same year by its inventor Thomas W. Lawson, a well-known Boston financier and author of the book, *Frenzied Finance*. About this time, Moore received an offer to sell Carter & Company, and his business associates strongly advised him to accept it. But demand for the Carter book was still strong, and the equipment used in its manufacture was the best available. More important to Moore, his managers were men of character and initiative, and his salesmen were already experts in applying the product to business systems. He had confidence in the future and decided to refuse the offer.

Moore believed the Frink book, embodying many features of the *Paragon*, was clearly an infringement of the Carter patent, but for financial reasons he did not file suit until 1889. The decision in 1890 upheld the Carter patent, and at that time Moore purchased the machinery and rights for the Frink book. A short time later, two key men of the Frink organization joined Carter & Company: C. A. Hurlburt as sales agent in Michigan, and E. K. Bottle at Niagara Falls.

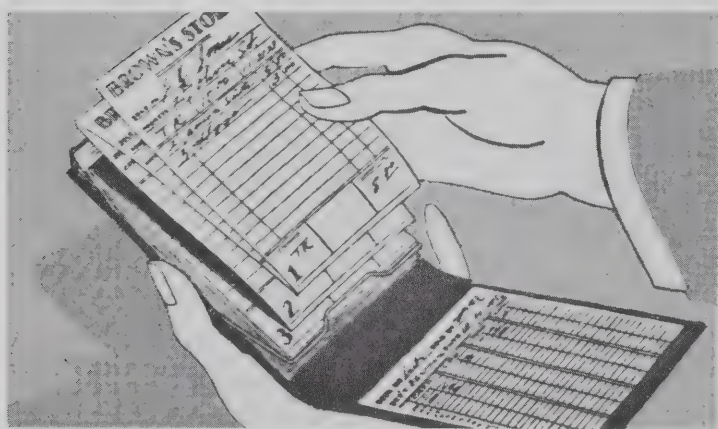
"Bottle by name and bottle by nature," he



John Dickson, left, joined Carter & Company in 1886 and later became the first sales manager of the American Sales Book Company. With him is Arthur Phillips, New York City sales manager from 1911 to 1932.

was affectionately described. On a Saturday afternoon he could be found languidly playing his French horn behind a printing press in the Carter plant. Eccentric as he was, Bottle proved to be a mechanical genius who was granted more than 100 patents for improvements in the sales book and related machinery during his 35 years with Moore. His career marked the entry of Moore into informal research to improve forms, accounting procedures and controls in business operations.

Meanwhile, the continuous book was making great inroads in the sales book market. Printed on a continuous roll and folded zigzag style—a forerunner of today's continuous interfold forms



The Continuous Book

—it was easier to use and more economical to manufacture than the *Paragon*. Instead of selling the book on its merits, however, Lawson undertook to make it popular by low prices. By 1890 he was in financial trouble. The machinery and continuous book patents of Lawson's company in Boston were put up for sale, and S. J. Moore negotiated their purchase for \$158,000. As Moore himself told the story later, "We didn't leave Boston before the man who had designed the Lawson machinery, Thomas Briggs, came to me and said, 'The machinery you have is out of date.' He then demonstrated to me in the old United States Hotel a machine which I could see was much more efficient and economical than the ones we had purchased. Before leaving Boston I had agreed to pay him \$10,000 in cash and retain him as a mechanical expert for a ten-year period. We scrapped the plant just purchased and built an entirely new

one for the manufacture of the continuous book. It took courage to buy the patent, but more to pay the \$10,000. It proved to be one of the most valuable investments we ever made."

Perhaps equally valuable were the services of William A. Pringle, a skilled press designer for the Lawson Company, who accepted a position with Carter & Company. Pringle later became factory superintendent and contributed to his company's leadership in the forms industry through improved production techniques.

Carter-Crume Company, Limited

About the middle of the year 1892, the Crume-Sefton Manufacturing Company in Dayton, Ohio, met with wide success in marketing three books which contained all the basic elements of the Carter patents. Moore filed a patent action, but W. E. Crume suggested a plan of amalgamation which was approved by Carter & Company stockholders on August 1, 1893. S. J. Moore became chief executive of the new company, called Carter-Crume Company, Limited. W. E. Crume remained as a vice president and helped to expand the company's coverage of the United States mid-western market.

In all acquisitions, Samuel J. Moore made every possible effort to retain employees of companies which were absorbed or merged with his own. This policy was not always advantageous to Moore in each specific case, but it contributed to a constructive attitude on the part of employees which did indeed influence the future of Moore Business Forms.

The company's appreciation of its human assets was not an accident. S. J. Moore is quoted as saying, "You can buy bricks, mortar, steel and machines, but you have to find men. Organization and know-how do not come as easily as factories and buildings." An attitude of respect and consideration for other individuals went all the way down the line. This attitude has been a factor in the company's fine relations with its employees through the years.

Make a Carbon Copy

The period from 1890 to 1905 was one of spectacular expansion in the United States and to a lesser extent in Canada. Factories increased in number and size; the population of cities con-

tinued to swell. Railroads extended their lines to cities throughout the two countries. Niagara Falls electricity was used to produce aluminum in 1895, and in 1896 the power from its turbines was carried a record 20 miles to the city of Buffalo.

Many companies still were operated directly by the founder or his sons. The “boss” was known to all his employees. He gave instructions verbally to new and old employees alike, and he could still show them “how it should be done.” Written instructions and records were few and were usually written laboriously by hand. Copies were still obtained by such old-fashioned methods as rolling up a pencil-written page with a damp rag and then pressing the page against a piece of tissue paper to obtain a print.

But this was an age of business combination, and the one-man operation was fading from the scene. The railroads, telegraphs and telephones gradually transformed business from local to national, from national to international. Industry expanded in every direction, management became departmentalized and responsibilities were delegated to a constantly widening circle.

“Put it in writing” was the new policy, and “Make a carbon copy of it” was the contribution of the business forms industry.

It was an era of growth, too, for S. J. Moore’s company. As department stores grew larger, the sales book became more and more a necessity. Moore introduced new store systems using books with consecutive numbering from the first slip in the first book to the last slip in the last. Meanwhile, industrial managers were beginning to discover the convenience of two- and three-part “sales books” for use in making out purchase orders, invoices and bills of lading. The industrial market was destined to outgrow even the retail sales book market.

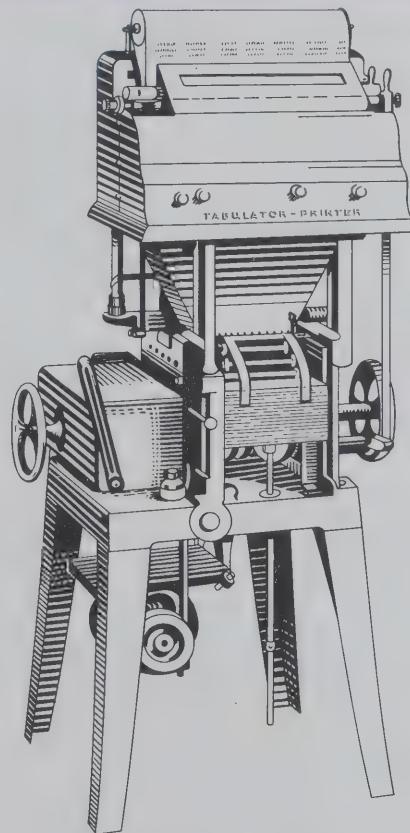
Moore’s growth was, at least in part, a product of the period. Like many organizations, it had evolved in response to the needs of the times. Later, however, it took an active part in shaping its time. The Company’s sales force pioneered new methods enabling management to exercise control and protection in business operations.

Work was started on a new factory, and in 1903 manufacturing commenced at what is today the Highland Avenue plant in Niagara Falls—still the largest single plant devoted solely to

the manufacturing of business forms in the world.

American Sales Book Company

A new company was incorporated in Elmira, New York, in 1899 to service the needs of small retail stores. It was called the American Sales Book Company, and its roots extended back to a day in 1886 when Warren F. Beck left the farm to become a general store clerk in a small village a few miles east of Elmira. He worked long hours during the day waiting on customers and then had to return each night to copy the day’s transactions by longhand into a general ledger. There must be an easier way to maintain records, Beck thought. He started work on a new system and by 1899 had developed many ideas to simplify record keeping for the small shopkeeper. His original “Eureka System” was later abandoned in favor of a new “Standard Account” system, which used a duplicating sales book that not only gave the storekeeper a record of each trans-



The first printing tabulator, invented by James Powers in 1913, found wide commercial application in statistical and business systems. It was a step forward in punched-card accounting methods and later opened big new markets for manifold forms.



Early company executives are, left to right, Walter Greig, Samuel J. Moore and Archie Bovier, shown at a meeting in 1917. Bovier was the first general manager of the American Sales Book Company in Elmira in 1899 and became general manager when his company merged with Carter-Crume in 1911. Walter Greig was general manager at Carter-Crume for many years and continued in charge of operations at Niagara Falls following the merger.

action but also carried forward the total amount owed by each charge customer.

The American Sales Book Company was organized by a group of Elmira businessmen to make Beck's system available to merchants. Archie Bovier, a young official in an Elmira bank, became general manager and was the force behind its early success.

Not long after the formation of the new company, Beck invented a new two-part book with a notch in one side which enabled the user to remove one set of slips and prepare the next set for writing without touching the carbon. About the same time, Carter-Crume developed a similar book. Thus began a dispute which developed into the sales book industry's famous "Cutaway Carbon Suit."

On a bright day in June, 1903, Samuel J. Moore received a letter in his Toronto office from his friend and patent attorney, C. H. Duell in New York City.

Dear Mr. Moore:

We are in receipt this morning of a bill of complaint in a suit brought by the American Sales Book Company and Warren F. Beck vs. The Carter-Crume Company, Ltd., and Samuel J. Moore. We have been asked to file an appearance in the case and save the expense of having a Marshal serve the papers. Under the circumstances, we have declined to do it, thinking it better to let the Elmira Company spend some money. The suit has probably been brought for advertising purposes.

*Very truly yours,
C. H. Duell*

The suit was not brought for advertising purposes. It became a bitter struggle which seesawed from one side's advantage to the other's on numerous appeals over an eight-year period. Finally, some enterprising young executive made use of one of the new adding machines which were appearing about that time and found that \$80,000 had been paid by both companies in lawyers' fees and court expenses alone.

Executives of the two companies had developed a healthy respect for each other during their frequent court contacts. Samuel J. Moore arranged a meeting with Archie Bovier to talk over the situation. Moore found that the American Sales Book Company had concentrated its selling efforts on small stores. While it serviced a large number of customers, the average order was small, the expenses per order were high, and the total volume of business was considerably less than its arch competitor. On the other hand, Carter-Crume had developed its business chiefly among department stores in large cities. The two companies were really more complementary to each other than in conflict.

The result of these talks was a merger in 1911 by which the Moore interests acquired a majority interest in the Elmira company through an exchange of stock. Samuel J. Moore continued as president of the combined companies at the head corporate office in Toronto, and Archie Bovier became United States general manager in charge of sales. The name, American Sales Book Company, Limited, was adopted as descriptive of the combined company's products, and United States offices were established in



The paper boxes above were manufactured by the F. N. Burt Company of Buffalo, New York, division of Moore Corporation, Limited. Its Canadian counterpart is Dominion Paper Box Company, Limited. The Company dates back to 1886, when F. N. Burt began to print law briefs and later drug labels. He was soon supplying druggists' pill and powder boxes purchased from another manufacturer. In 1896 his plant was moved from 440 Main Street, Buffalo, to the corner of Swan and Ellicott Streets where he commenced manufacturing soap boxes. The business grew rapidly, and in 1900 a four-story brick structure was built at the corner of Seneca and Hamburg Streets where the present factory is located. Here cigarette boxes were manufactured by hand until specially designed machinery

permitted automatic production. Cigarette boxes remained the backbone of the company's business for many years. When cigarettes went from solid boxes into paper packs, the company developed a line of round cosmetic boxes, which today make F. N. Burt "the largest manufacturer of small paper boxes in the world."

In 1936, the company began to manufacture folding cartons, paper-box wraps and box labels.

Boxes, like forms, are designed individually for each customer and are produced on special automatic machinery. Other products of the company include face-powder boxes with metal bottoms and square boxes used by film processors to mail 35 mm. slides.

Elmira. The merger was extended to include the Beardsley Press, the New York Cash Sales Book Company and the Eastern Sales Book Company, all of New York City.

Meanwhile, Moore continued sales book operations in Canada, having purchased the sales book presses and manufacturing rights from Grip some time before the turn of the century. In 1901, he had also acquired the Morton Company of Canada and added another of the many "firsts" to the list of products developed in the Moore family of enterprises. The carbon-coated book was one in which the back of the

first slip was brushed with a carbon coating, thus eliminating the need to insert a slip of carbon paper to obtain a copy and enabling the user to make additional entries on a set of slips after removal from the book. Acquisition of the Morton Company also gave the Canadian company a shipping tag division not shared by its American counterparts.

The great Toronto Fire of 1904 burned out the Carter-Crume plant, in spite of the efforts of R. P. Templeton, who stood on top of the plant throwing pails of water until forced to move by the intense heat. Recovery was quick,

and a new plant was acquired at King and Spadina Streets. In 1909, Moore's Canadian interests were merged under the name, F. N. Burt Company, a name which, amended to Burt Business Forms, continued until Moore Business Forms was adopted in 1945.

Early Principles of the Forms Industry

Formation of the American Sales Book Company in 1911 brought together under one management the largest and most competent group of business system experts ever assembled up to that time. Two factors distinguished the new company from local printers throughout the nation. The first, as we have seen, was concentration on a single line of products.

The second was the forms salesman. Given the opportunity to concentrate exclusively on the sale of business forms, he soon learned the best features of many business systems and was able to provide valuable system planning service.

The recognition by the Moore organization and sales force of the importance of business systems is clearly indicated in a book, *Where Have My Profits Gone?*, published by the American Sales Book Company in 1912. The story of how this book came to be published is told by W. M. Cooper, who was in charge of credit and adjustment at Elmira at the time of the merger and later became sales manager of the combined companies. "Soon after the amalgamation," Mr. Cooper recalled at his Elmira home, "it was decided we should have national advertising. M. P. Gould, an advertising expert, was retained as a consultant, and when Gould got started, he said, 'Gracious! It is so detailed that I think the thing we need to do is to write a book, and offer that book free for a coupon to be sent to the company.'"

To obtain a list of potential customers, the company offered the 256-page volume free to anyone who sent in a coupon. All kinds of people could and did write for it—alert young men, clerks, children and curiosity seekers. Three months after publication, more than 50,000 requests had been received. Each coupon was later forwarded to a salesman, but for selling purposes, more than half were duds. "Salesmen ran their heads off," commented Mr. Cooper, "only

to find a home or boarding house and no chance to sell." On top of all this, the cost of publishing *Where Have My Profits Gone?* in 1912 exceeded the company's entire profit for the year.

"Where have our profits gone?" asked the company's shareholders.

Yet the book is particularly significant today, as we look back through three quarters of a century, for it was written with information provided by Moore salesmen and executives of the period. In its pages are the principles pioneered by the early salesmen and the contribution of the industry to the development of business procedures. The first of these principles was the importance of business systems—systems to control buying, selling, return of goods, receiving, delivery, employees' purchases and other key operations that must be controlled if a business is to be profitable.

A second basic principle as recorded in *Where Have My Profits Gone?* is, "Every individual shall make a record of all particulars of each transaction at the time when the transaction takes place. The individual cannot be depended on to write up at the end of any period of time, a record of what he remembers of the transaction. Memory has virtually passed out of modern commerce. The record must be made as the transaction takes place."

A third principle is "One writing can serve many purposes." The original entry on a business form was already doing double and triple duty through the varied use of carbon paper, a raw material of the manifold forms industry. A traveling salesman took an order in duplicate, keeping a carbon copy for himself and sending the original to his company. A "C.O.D." sales record, instead of being copied three separate times, was recorded once on a three-part form. In retail systems, stores gave a sales slip with each purchase and retained a copy to serve as a credit and sales record. To stop losses from faked exchanges, return of the original slip was required with goods to be exchanged.

Today, with millions of retail transactions each hour controlled by business forms, it is difficult to imagine that these ideas were considered radical innovations when pioneered by Moore salesmen in the years surrounding the turn of the century.

The importance of carbon paper to business systems was emphasized in the following pas-

sage, written in the Toronto office of Samuel J. Moore in 1908 and reprinted in *Where Have My Profits Gone?*:

"In making up a list of the ten most important contributions to the commercial progress of the nineteenth century, it would meet with general approval if the list included the typewriter, the telephone and wireless telegraphy. Yet it would probably cause considerable surprise and discussion if the list included carbon paper, often called transfer paper. Carbon paper, at first thought, seems to be of minor importance, yet the more you think of it, the more its importance grows. The phonograph reproduces the voice, while carbon paper reproduces the written record—which is often more valuable than a library of law books. In fact, carbon paper has served a most useful and important purpose in furnishing the records which have made possible the organization, direction and control of a large part of modern business."

Today Moore Business Forms is believed to be the largest manufacturer of carbon paper in the world and uses its entire production in its own business forms.

Punched Card Methods

While Samuel J. Moore and his executive staff in Toronto were concerned with integrating and managing the American Sales Book Company, many events took place outside their control which were to affect the forms industry profoundly.

The development of the tabulating card as a method for processing data began in 1880 when Dr. Herman Hollerith, a noted statistician, was engaged by the United States Government as a special agent for the United States Census Bureau. His job was to develop mechanical aids to speed processing of census information. He developed a system for placing census information on paper strips. Punched holes instead of written numbers enabled the paper strip (tabulating card) to be processed by machine. This was the beginning of punched-card methods. Dr. Hollerith later formed his own company, which merged into the Computing-Tabulating-Recording Company, a forerunner of International Business Machines Corporation.

Again, in 1907, the Census Bureau sought improved methods to process data in the forth-

coming 1910 census. James Powers, an engineer, developed the census punching machine and a horizontal card-sorting machine. Later, he formed the Powers Accounting Machine Company, soon merged with Remington Rand, Inc. In 1913, Powers produced the first tabulating machine which printed its information. This machine and others, like the billing and accounting machines coming into use at the same time, prepared records on business forms and vastly increased the capacity of industry to process data.

In later years, as the complexity and speed of business machines increased, machine manufacturers faced the problem of how to control the feeding and alignment of multiple-copy forms. One way was the development of marginally punched forms using sprocket wheels for form control. The sprocket idea was perfected in 1912 by Theodore Schirmer, who perforated the margins of a paper roll so it could be en-



It was quite a trick to hold alignment between forms on this contraption. An early machine of the Elliott-Fisher Company, later merged with Underwood Corporation, it illustrates how form rolls were used in business machines before the interfolded form. When interleaved with one-time carbon, the interfolded form enabled this and other business machines to prepare multiple-copy, pre-printed accounting and management documents.

gaged with a wheel and pin device for continuous feeding on registers with no slipping of forms. Schirmer founded the Standard Register Company of Dayton, Ohio. Later, this company, the Autographic Register Company, Uarco, and Moore developed a wide range of processes designed to synchronize punched forms to tabulating, billing and other data-processing machines.

Even the United States Government in its own unique way contributed to the progress of the forms industry by passage of the Sixteenth Amendment to the Constitution and the Federal income tax law in 1913. "Robbery," "misappropriation of hard-earned capital" and "violation of personal freedom," were among the mildest of comments aimed at the income tax. But to the forms producers, the income tax meant another important record that industry had to maintain. Carbon manifold forms produced necessary copies and eliminated much repetitive writing that might otherwise have been required for income tax records.

Later the Social Security Act, the withholding of taxes at the source and numerous government taxing and regulatory agencies all created additional records needs. Each new data requirement constituted a potential increase in clerical staff or a new use for duplicating forms. Economy and accuracy, then as now, favored the form.

With business form requirements continuing to increase, the Sales Book Association was formed in 1916 to develop through research and promotion new uses and markets for the industry's products. O. L. Moore, not a relative of S. J. Moore but intimately familiar with the industry, became the Association's first general secretary and made an important contribution to the industry over a period of years.

It was through the Sales Book Association that Samuel J. Moore demonstrated many of the qualities which earned for him the unofficial role of elder statesman for the industry. When demand for the sales book surpassed the capacity of his pioneer company, he made hundreds of business form and sales book patents available to competitors through license agreements and, in so doing, extended the capacity of American commerce to systematize its operations with the best available forms. An important figure in Canadian enterprise, he was connected with several

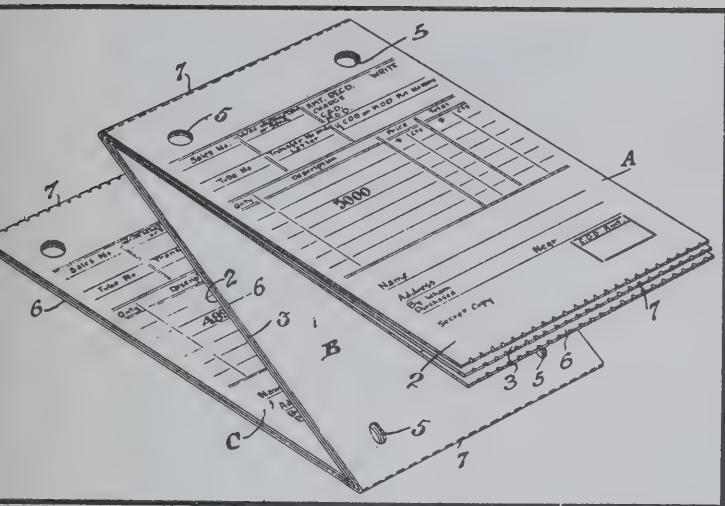
other companies outside the forms industry and later became president of the Bank of Nova Scotia. He was recognized by the members of the Association as the founder of the industry and was regularly called upon at meetings for "a few remarks upon any subject he chooses."

Pacific Coast Companies

Meanwhile, S. J. Moore, continuing to seek a continent-wide pattern of distribution, acquired the Pacific Manifold Book Company. A group allied with the Seventh Day Adventist Church had started in 1896 to print religious books and literature in Oakland, California. The organization had excess press capacity and commenced the printing of sales books under license from Carter & Company. The group was a nonprofit organization, and it is said that certain of the Adventists were distraught to find not only that the printing of religious documents was becoming secondary, but that the production of sales books was actually showing a profit! This was a disconcerting discovery, and they decided to sell the equipment and licenses for the production of sales books. To acquire these assets, the Pacific Manifold Book Company was organized by Horace P. Brown in 1904 with several other men in the San Francisco area. It was sold in 1910 to Moore and his associates.

Two years later, the publishers of the *Los Angeles Times* started to make sales books in a section of their plant under the name of Los Angeles Sales Book and Ticket Company. The publishers soon discovered that newspaper and sales book businesses were not compatible and in 1916 sold out to S. J. Moore, who thus extended coverage by his affiliated companies to the whole west coast. R. P. Templeton, who had started with Moore in 1899 as an office boy in Toronto, became the first manager of the Los Angeles company and soon converted it into a profitable organization. The company was merged with Pacific Manifold Book Company in 1927.

Horace P. Brown at the Pacific Manifold Book Company brought to the Moore organization both inventive ability and a willingness to listen to new ideas. It was he who recognized the value of William J. Wiswall's idea to replace roll forms in registers with the interfolded, *Flatpakit*



The interfolded form in patent drawing was first used in the *Wiz* register invented in 1921 by William J. Wiswall in a shed behind the Pacific Manifolding Book Company. The continuous, zigzag-folded form was an adaptation of the continuous sales book produced by Moore 30 years earlier and soon replaced the rolls used in registers at that time. This same form, marginally punched and interleaved with carbon paper, is today's continuous, interleaved form used on high-speed automatic tabulating and billing machines in accounting and data processing systems throughout the world.

form, made by interfolding two or more continuous sales books together into one flat pack. While a department head in a stationery firm in Portland, Oregon, Wiswall had placed orders for the continuous sales books with holes punched at the top and bottom. He had then taken two or more of these zigzag-folded books, unfolded them, and then refolded them together to create an interfolded, flat-pack manifold form. Alignment between copies was maintained automatically, both by the interlocking folds and by pins inserted into the punched holes. One of the biggest advantages of Wiswall's device was that the carbon copy in the zigzag-folded manifold form could refold itself back into a flat pack when fed into a locked compartment in the register, thus providing an easily audited and tamper-proof record.

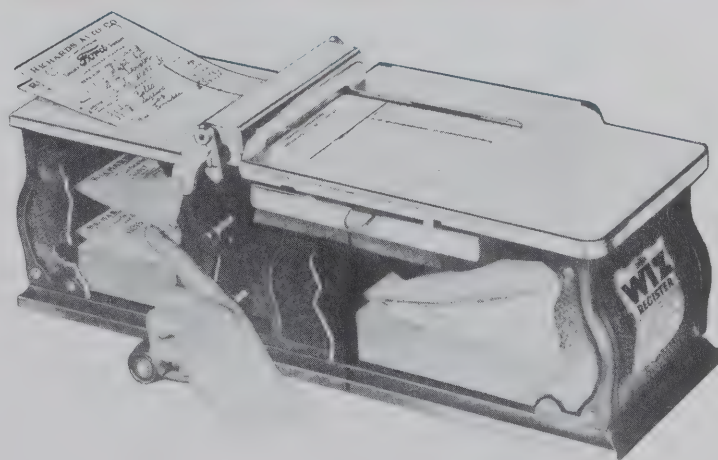
Wiswall first approached several eastern forms manufacturers, including the American Sales Book Company in Elmira, but when he received no encouragement, he brought his device to Horace Brown.

On the Pacific coast, Brown set Wiswall up in a shed behind the factory and provided him with top-flight mechanical assistance. A new sales register using flat-folded forms was perfected and named *Wiz*.

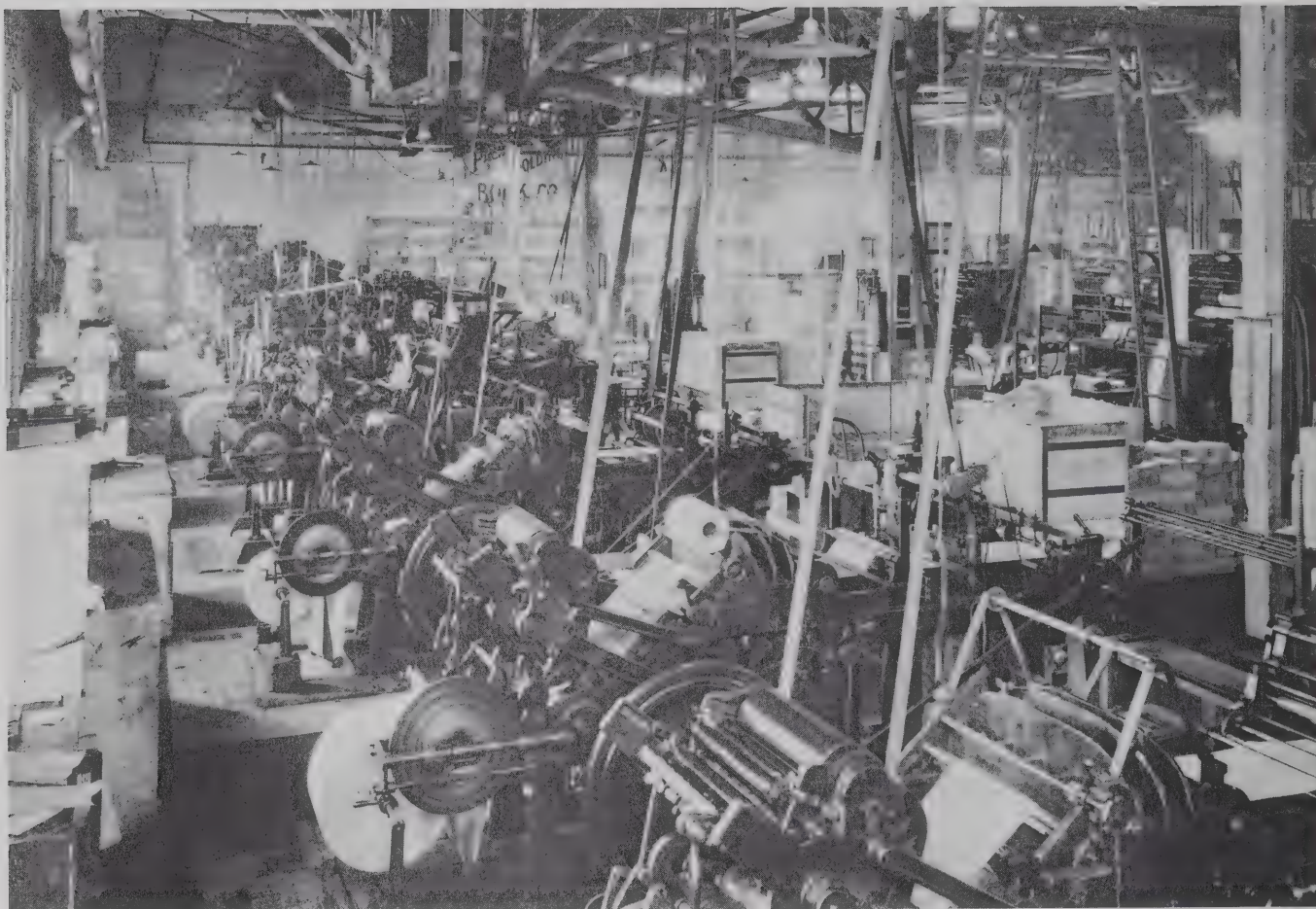
Introduced in 1921, the *Wiz* register was an immediate success. Its advantages included automatic alignment of copies, the use of easily audited interfolded forms which did not curl, speed of operation and ease of loading. The tremendous possibilities of the new flat-pack register

soon became apparent, and Wiswall was transferred to the east, where he developed numerous improvements with the aid of William A. Pringle and Louis Hageman, two of the company's leading mechanical experts.

If the zigzag-folded, flat-pack continuous form could replace rolls in registers, why could not the same principle be applied to business machines, many of which used rolls of forms? Alert salesmen began to sell zigzag-folded manifold register forms for use on business machines even before the interfolded machine form was officially introduced. The company's mechanical experts developed carbon-holding attachments which made it possible to prepare multiple-copy interfolded forms on business machines of the day, like the Elliott-Fisher and Underwood Continuous Billing Machines.



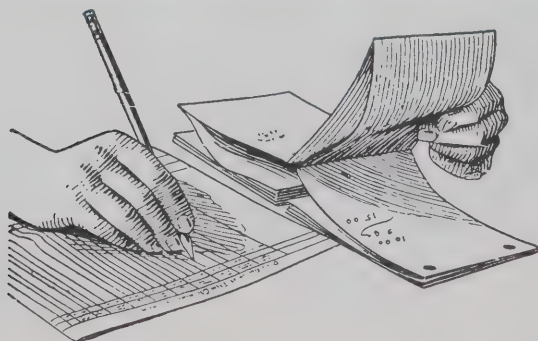
The *Wiz* Register



In the Pacific coast plant about 1920, leather belts run from a single-drive shaft to printing presses. The belts were used in all Moore plants until individual presses were equipped with electric motors.

Web presses, using rolls of paper, considerably speeded production from the earliest days in Toronto.

The way was now opened for new, timesaving business methods. In cooperation with office machine manufacturers and accountants, systems were developed to simplify accounting and



Auditing from *Flatpakit* forms proved much easier than from long, rolled strips which curled over the desk and floor.

record keeping, to streamline office procedures and to make one writing accomplish many purposes in an endless variety of new ways. Spread out before Moore was a vast new market for the use of forms. However, the Company's salesmen first had to translate the needs of customers into systems which would use the potential economies offered by the new forms.

In previous years, Company officials had found that in order to introduce a new product successfully, it must first be sold to the sales force. It was plain that in order to introduce the new continuous form with its many applications to business and accounting methods, the salesmen of the Company had to be fully informed.

For this reason, the sales convention of 1924 was called.



A Period of Change

"If all our plants were wiped out overnight, this Company could rebuild itself and be the leader in this industry in a few months because its men have been carefully chosen for their ability to do the job they were selected for."

... R. P. Templeton

ON A MORNING IN JULY, 1924, a young man threaded his way through Manhattan's Grand Central Terminal toward a train to upstate New York, en route to Westminister Island in the Thousand Islands. Norbert J. Murphy had been an American Sales Book Company salesman in New York City for 11 years and was on his way to his first sales convention.

Murphy, in his background, opinions and memories, was typical of 160 other salesmen who were looking forward to a week in the famous resort area.

The sales convention did its job in educating the Company's salesmen. Murphy and the assembled salesmen went to school. They learned how the new, interfolded continuous form could be used with business machines to prepare multiple-copy records. "The convention enlarged our entire concept of selling," Murphy later recalled. "Each day in class, we were taught how to analyze a company's operations. We studied systems we never had known before and learned how to incorporate three or four functions into a single manifold form, so that one writing produced all the needed records. We became more systems minded and were able to devise many additional procedures to meet the expanding business needs of the time."

For the business form companies of Samuel J. Moore, the sales convention of 1924 marked the start of a period of change. The new continuous product opened contacts with business machine manufacturers, and a tradition of cooperation developed between the two industries. The new forms increased the usefulness and the sales of many machines, and the machines in turn also increased the sales of forms. Although sales

book production continued to advance, the continuous forms were to capture an increasing percentage of total forms production. In 1924, the sales book represented approximately 75 per cent of total production and the continuous form less than 1 per cent. Six years later in 1930, sales books amounted to about 45 per cent while the continuous form had advanced to almost one third of the total. In 1957, continuous products and *Speedisets* accounted for close to 83 per cent of Moore's form production, and the sales book a shade more than 13 per cent.

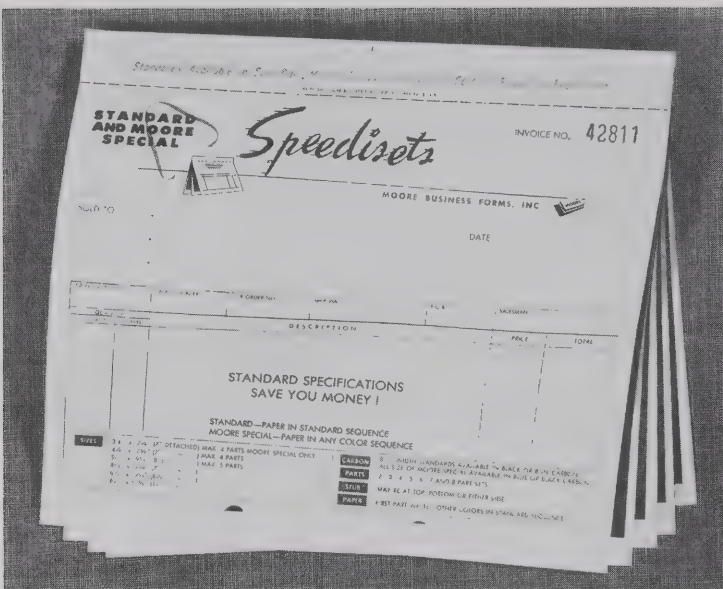
This transition is indicative of the development of business procedures from hand-written book forms to continuous, high-speed machine operations. The largest volume of continuous-forms production today is used for business records prepared on automatic or semi-automatic business machines.

One-time Carbon

in Continuous and Unit Forms

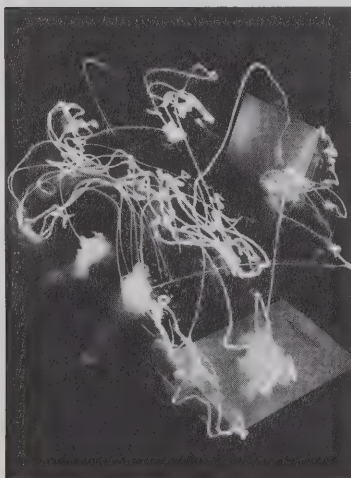
Horace P. Brown and one of his sales executives, Harry Stevens, continued to seek product improvements at the Pacific Manifolding Book Company. Brown and Stevens had made it a habit for many years to get together Sunday mornings for a visit at the Emeryville plant. Quite naturally, their conversations turned to some aspect of business forms. During one of these Sunday morning sessions, the two men conceived the idea of one-time carbon paper—a carbon paper made at such low cost that it could be used once in a form and thrown away, yet still save money and clerical time for its user.

Development work went forward at Niagara



The *Speediset* or snap-apart form, a Moore invention, provides the convenience of one-time carbon in a unit form.

By varying the printed matter from one copy to another, a *Speediset* can serve many purposes. For example, a *Speediset* order form enables a clerk to prepare at a single writing an acknowledgment to the customer, a production notice to the factory, a notice to the salesman, a shipping notice, an invoice, a bill of lading and additional records as needed.



The unretouched photograph at left shows hand motions of a stenographer as she prepares, types and separates forms, using four loose sheets and three loose carbons. The one at the right illustrates the saving in time and energy when the same forms are used as a four-part Moore *Speediset* with one-time carbon. Collating and aligning motions are eliminated, and the tedious job of separating the carbons is reduced to the simple act of snapping out a stub with the carbons attached, leaving the parts of the set ready for use.

Falls and at both plants on the Pacific coast before H. P. Brown in 1925 produced a thin-tissue carbon paper suitable for making a copy and cheap enough for one-time use. Brown then interleaved one-time carbon paper in interfolded, continuous check-writing forms for payrolls at the Pacific coast plant.

Competitors and friends alike scoffed at first at the idea that anyone would use carbon paper once and throw it away, but one-time carbon soon was to revolutionize the forms industry. Pioneered by Moore companies, its use led to thousands of new multiple-copy form applications.

For the first time, high-speed tabulating and billing equipment could place information on multiple-copy preprinted forms. A new field of research was opened between form and machine companies to integrate forms and machine design for speed and efficiency in form utilization. Among the earliest customers for carbon interleaved forms were users of the Burroughs-Moon-Hopkins continuous billing-calculating machine, which had been confined to cut sheets of paper with loose carbon for multiple copies. One-time carbon also minimized the need for complicated and time-consuming carbon-holding devices on office machines which used continuous forms.

Carbon interleaved forms were a big time-saver for repetitive operations and almost eliminated replacing forms and fussing with carbons. But for the typist or machine operator whose job included preparation of several different records, switching from one set of continuous forms to another was bulky and awkward. To provide the convenience of one-time carbon in unit forms, the *Speediset* was conceived and a patent application filed in 1926 covering its essentials. On the Pacific coast, Harry Stevens succeeded in perfecting the modern *Speediset* and applied for a patent in 1928. The product consists of several sheets of paper with one-time carbon interleaved, bound together in a stub and perforated so that the pages and carbons can be snapped apart.

"It pays to throw carbon away to keep time out of the waste basket" was a selling motto. The new product saved clerical time by eliminating the need to arrange forms and insert carbons before preparation and the need to separate the parts and remove carbons later.

Any office with a typewriter was opened to the Moore organization as a possible user of manifold forms.

Gilman Fanfold Corporation

By 1925 the companies in the Moore Group produced every type of commonly used business form except one—the *Fanfold* form manufactured by the Gilman Fanfold Corporation at its plant in Niagara Falls. In that year O. L. Moore of the Sales Book Association negotiated the sale of his plant to the S. J. Moore interests.

The *Fanfold* form dates back to 1905, when H. J. Hollis, the president of the Elliott-Fisher Company, was trying to get a large order from a railroad. He is quoted as having said, “If there were only some way of attaching the edges of your roll forms together so that the forms would not slip out of alignment, considerable new business could be obtained.” He evidently made the point to a number of people, including A. S. Gilman, who operated a printing company in Cleveland, Ohio, specializing in railroad tariffs.

Gilman soon became enthusiastic about producing such a form, fastened at the edges, for the tremendous quantities of freight bills and waybills used by railroads. By printing on two sides of a single sheet of paper and folding the sheet along its entire length like an oriental fan, he developed the *Fanfold* form, in which all copies were joined together at the fold. Slipping between copies was thus eliminated and registration assured. Gilman took his first order for *Fanfold* from what is now the New York Central Railroad System on April 20, 1906.

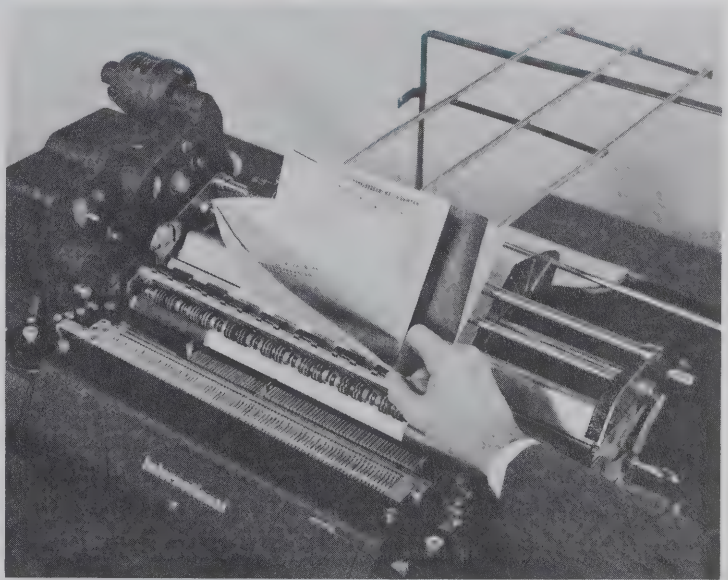
At first *Fanfold* forms were wound in rolls, but rough handling by freight companies often caused damage along the edges. A. S. Gilman in 1913 went to Erie, Pennsylvania, to consult an engineer who had a reputation for solving difficult paper problems. In the railroad station, he saw a woman wearing a long pleated skirt drop a package. As Gilman hurried to assist her, she stooped to pick it up, and in that instant he noticed that her pleated skirt shaped itself naturally into folds on the floor. In a flash, he visualized the accordion-pleated *Fanfold* forms folded crosswise into a solid pack in quite the same manner as the continuous sales book. He went back to Cleveland and found that the idea worked.

In 1921 Gilman decided to build a *Fanfold* factory in Niagara Falls on a piece of property adjoining the International Paper Company, the source of his paper. The first section of his new plant was opened in February, 1923. Almost overnight he moved all the necessary equipment and dozens of his men with their families to Niagara Falls.

On the day in 1925 the Niagara Falls plant was sold to Moore, Gilman cashed his check at one bank and carried the money across the street to another for the pleasure of having carried a million dollars, a pleasure most of us have missed.

Moore Corporation, Limited

Nine companies manufacturing paper products or machinery related to its production were known as the “Moore Group” in the financial district of Toronto by 1928. Each of the companies had grown and prospered under the leadership of S. J. Moore and his associates in Moore’s head offices on Bay Street, Toronto. The three



Use of the *Fanfold* form received its greatest impetus during the first world war when the United States Government took over the operation of the railroads. These forms were adopted throughout the unified railroad system as standard for freight billing and shipping purposes. The government’s use of *Fanfold* during the war period marked the first time carbon copies were generally accepted as legal records. Courts had not yet accepted the fact that a carbon record could be as reliable or more reliable than the original handwritten record of a transaction.

Moore at War



Not as explosive as torpedoes nor as obvious as ships and guns were the contributions of Moore Corporation, Limited and the forms industry to the war effort in two world wars. The knee desk above, a product which captured the public imagination, gave World War I soldiers the means to write a quick letter home. It contained stationery, pencil and even a candle with its own holder. The Kidder Press Company's plant capacity in World War I was devoted largely to repairs of submarines and ships, and to the manufacture of looms to produce wire cloth for holding gas mask filters. In World War II, the Company's machining and assembly skills were used by the United States Navy to manufacture 12 large internal operating mechanisms for submarines constructed at the Portsmouth Navy Yard. The most important assemblies were torpedo-tube muzzle doors, blow-vent and brain valves, main ballast valves, emergency vent valves, sea suction valves and bulkhead vent valves.

Moore Business Forms as well as Kidder Press was declared an essential war industry in World War II and produced nearly 6,000 different types of forms for controlling production of war goods, movement of troops and war materiel, military pay and personnel records, inventories of strategic materials and other critical military and government functions in Canada and the United States.

In Washington, R. P. Templeton and G. M. Doolittle, veteran Moore executives, headed a team which provided systems planning service to government agencies and coordinated Moore's production with war requirements.

United States soldiers the world over stood at attention mornings while their presence or lack of it was recorded on U.S. Army Headquarters Company Morning Reports, designed and produced by Moore. The Company met such continuing requirements as manufacturing nearly 30,000,000 message books for the Army Signal Corps. These books consisted of 25 three-part Speediset forms and three two-part forms, the latter printed on lightweight paper for delivery by carrier pigeon. For the Office of Defense Transportation, Moore designed and produced forgery- and counterfeit-proof documents to implement the gasoline and power-conservation program. For the Office of Price Administration, Moore prepared more than 170,000,000 gasoline and other ration books and assisted in setting specifications for additional ration forms which could be produced on the equipment of rotary printers throughout the United States. This action opened a wide source of supply for vast quantities of ration books which were far beyond the ability of any one manufacturer to produce.

largest were American Sales Book Company, Ltd., Pacific Manifold Book Company, Ltd., and Gilman Fanfold Corporation, Ltd. The other six were:

1. Burt Business Forms, Ltd., of Canada, successor to Moore's Canadian sales book interests started in 1882.
2. Western Sales Book Company, Ltd., with plants in Winnipeg and Vancouver.
3. Cosby-Wirth Manifold Book Company of Minneapolis, Minnesota, purchased by the Moore interests in 1924. Acquisition of this company marked the first significant use by Moore of the dealer method of distribution which continues to supplement the efforts of the direct sales force in all divisions. Chauncey Crofoot, who started work with Samuel J. Moore in Toronto in 1907, became its general manager.
4. F. N. Burt Company, Inc., of Buffalo, New York, the largest manufacturer of small paper boxes in the world. One of the few women to hold an executive position in any of the Moore companies, Miss Mary Cass was Burt's general manager and leader for many years.
5. Dominion Paper Box Company, Limited, Toronto, the Canadian equivalent to F. N. Burt Company and a member of the Moore Group since 1909.
6. Kidder Press Company, Inc., Dover, New Hampshire.

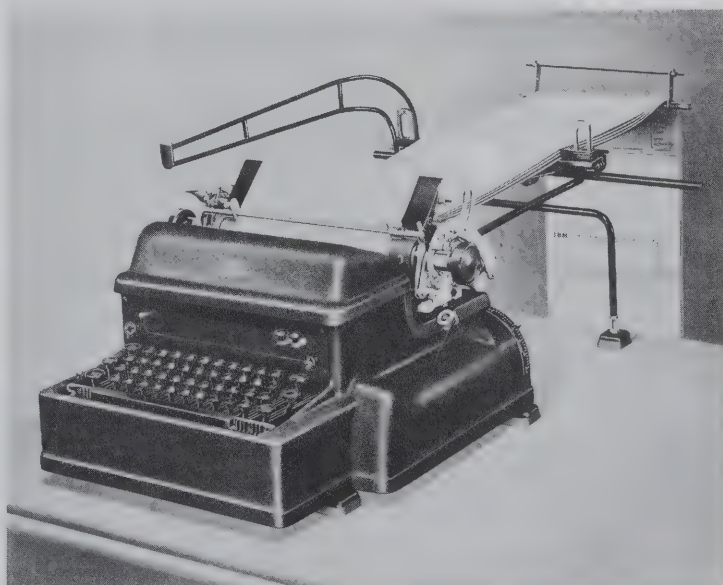
Although financial policy was set in Toronto, each of these companies had developed in its own way. Local managers were responsible for personnel, sales and operating procedures. This autonomy allowed each company to expand in accordance with its own particular potential but still created many problems. For example, if one company developed a new product, license agreements and much legal haggling generally resulted before it could be manufactured by other companies in the Moore Group. Moore and other directors decided on a plan to merge American Sales Book Company, Pacific Mani-



The Remington Rand was the first commercial electric typewriter. It made up to 18 legible copies with *Speediset* forms. Both the form and the machine increased each other's potential uses and sales.

folding Book Company and Gilman Fanfold Corporation.

Shareholders of the three companies approved merger plans, and Moore Corporation, Limited, began its existence January 1, 1929. Its shares were issued in exchange for outstanding shares of its three subsidiaries. For the first time, the Corporation carried the name of Samuel J. Moore, founder of the industry. The new corporation began operations at the start of 1929 with a capital of five million dollars and an annual sales volume of ten million dollars. Each of its three operating companies continued under



This early model IBM electric typewriter is shown with an attachment which held carbon paper in place and permitted use of *Fanfold* forms.



Moore is not in the business machine field and prefers to concentrate on forms. However, the Company does design and manufacture a complete line of equipment, both to facilitate control of forms by business machines and to automate the after-writing operations of decollating, imprinting and detaching. The *Formaliner*, above, was developed in 1936 to control alignment and vertical spacing of marginally punched continuous forms. Manufactured today by Kidder Press and under license to leading business machine manufacturers, the *Formaliner* is used on tabulators, accounting machines, typewriters and high-speed printers for data-processing installations.

Below, the *Vertical/Spacer*, introduced in 1953 for use on electric typewriters, automatically advances forms from one writing area, line or form, to the next, eliminating time-consuming, line-by-line platen advancing. Decollators separate miles of continuous forms and remove the interleaved carbon.



its own name for many years, as did all the other Moore companies which later became part of the new corporate structure.

The merger strengthened the position of each associated company. Financial, research and personnel resources of the entire organization were available to each unit. Economies were secured through group purchasing, and accounting practices were standardized so that comparisons could be made between units, facilitating the correction of any weaknesses. A complete range of form products and the facilities to produce them were coordinated under one management.

With the organization of Moore Corporation, Limited, the job of integrating the various companies, previously operated independently and in competition with each other, was vigorously undertaken. The direction of the business had meantime passed to Mr. Moore's senior associate, E. G. Baker, whose first task was to create a management group on modern lines and establish definite, clear-cut policies on which the larger business would operate. Samuel J. Moore remained as chairman of the board but active management fell to Mr. Baker, who had started work with him in 1905 as a temporary clerk and had since held many executive positions in Moore companies. The problem was to translate to the best advantage the combined experience of all divisions into policies and programs understood by all, and at the same time to maintain the autonomous character of each operating unit.

"This took time," states Mr. Baker. "We gradually arrived at a clear understanding of basic policies and put these into operation in the various divisions of the company, but there was no attempt to mold everyone to a single pattern. What we tried to do was to agree upon sound principles and the best methods, based on experience, and have these carried out in the manner most suited to the conditions in the territory in which each division operated."

Gradually, basic policy included recognition of the importance of decentralized operation, and the increased place of research and development. Constant attention was given to the selection and training of young men, because it was recognized that the company's future would depend on the development of competent management. It was agreed that management should be

developed from within and kept fully informed throughout the business.

A concept of group management was initiated and soon spread to each division. The management group usually included the general manager, sales manager, plant manager and comptroller. As team spirit developed, a sense of pulling together gradually built up throughout all the units of the company. Most important of all, key personnel were given a voice in policy making, thereby gaining insight into all the major problems of the business and being prepared for larger executive responsibilities.

Through the years, policies and methods have been constantly revised, but always there has been an unfailing appreciation that the Company's growth depends largely on the caliber of its personnel and the extent to which first-class management is developed.

The Depression

Only a few months after the inception of Moore Corporation in 1929, the United States and Canada were hit by the great depression. Sales declined from ten million dollars in 1929 to a low of six million dollars in 1932. Executive vice president W. Norman McLeod instituted tight controls to hold employment levels and keep the organization intact.

Executives and employees took two voluntary salary cuts. Many employees worked only every other day, while married women with working husbands were laid off to make room for people whose livelihoods depended exclusively on employment with Moore.

Form sales began to climb in 1933 somewhat ahead of most other industries. Hard-pressed businessmen were seeking new cost-saving systems, often requiring manifold forms.

In spite of the depression, management reached a decision in Toronto to continue financial support of the formal program of research started in 1929 with the formation of the Moore Research Division. It was a decision of great significance to the future success of the Corporation.

The Role of Research

Research at Moore had been an informal activity up to 1929, largely sparked by individual

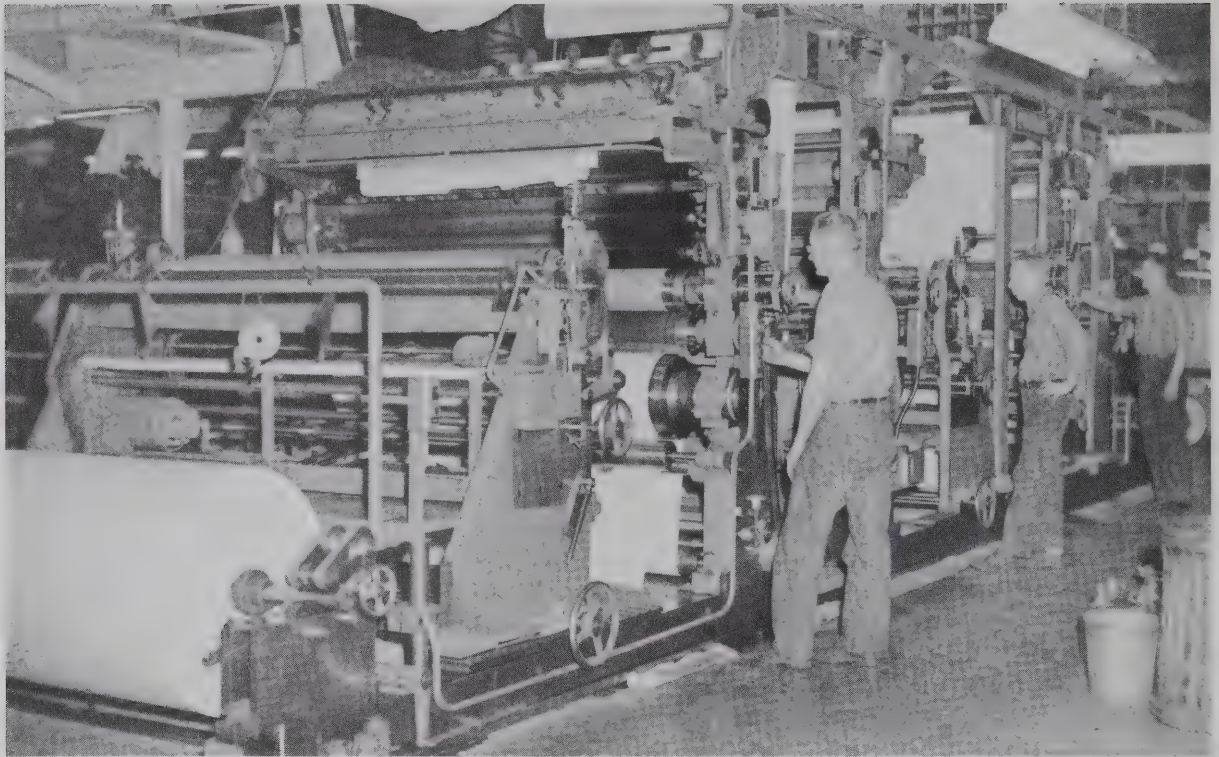
efforts rather than by systematized and coordinated planning. But as business expanded, accounting systems increased in complexity, business machines became more intricate and form requirements grew more exacting.

Moore executives recognized the necessity for thorough and coordinated research and initiated a formal program in 1929. For a while, objectives of the program were confused, but Stuart Fleming became director of research in 1932 and helped crystallize six areas of research activity:

1. Investigate and develop new uses for forms and new applications of the basic principle, "Let one writing serve many purposes."
2. Develop automatic manufacturing equipment for economic production of business forms.
3. Study and improve the raw materials of forms—paper, carbon and inks.
4. Maintain liaison with business machine manufacturers and study the forms requirements of present and potential business machines so as to insure compatibility between forms and machines.
5. Develop special equipment to increase control of forms on business machines and to handle forms automatically after they leave the machine.
6. Establish forms specifications sufficiently standardized to permit manufacture in large volume at low cost.

The research department started with the fundamental concept of the manifold form as a commercial tool—a tool which enables one writing to serve many purposes and often allows inexperienced people to do the work of experts. A professionally designed business form takes an original entry and uses it in three ways.

First, a manifold form can frequently be used to prepare *at one writing* all the required records of a transaction. A clerk can type a purchase requisition and at the same time prepare a request for a quotation, purchase order and receive-



These high-speed automatic presses at Niagara Falls manufacture precision business forms to tolerances of one thousandth of an inch. Among the many operations performed on these machines are

printing on both sides of a roll of paper at the same time, perforating in two directions, punching, numbering each form consecutively, folding and delivering the finished product ready for shipment.

ing record, *all without additional writing*. He can type a sales order, and *at the same time* prepare a customer acknowledgment, invoice and shipping label.

Second, a form carries information to the point where it is processed by individuals or machines. In charge account systems, sales slips carry information to the accounting department for preparation of monthly invoices.

Third, the printed form gives meaning to information entered on it. The figures on a payroll check, for example, would have little meaning on a blank piece of paper.

Many new applications of the form as a commercial tool have been developed by Moore Research systems experts. But the unique contribution of research directed by Stuart Fleming lay in its emphasis on basic principles—particularly on the principle that business forms must be sufficiently standardized to be sold in large volume and produced at low cost on automatic machinery. Previously, the general tendency was to sell anything the customer wanted instead of

adjusting form specifications to existing production machinery. It became a duty of the sales force to show each customer that his forms could do as good a job at lower cost if their size and design were standardized to permit automatic manufacture.

Standardization did more than reduce form costs and selling prices. By reducing the variety of sizes to a manageable number, it speeded the development of automatic features on business machines which handled forms. A leading business machine company executive said, "There was once a time when business form companies were making thousands of the different widths and types of forms, but the policy of standardization simplified our problems and enabled us to construct automatic machines for standard widths. The business machine industry could not have grown to its present position," he added, "without the assistance and cooperation of the forms industry. The continuous form, permitting a preprinted accounting and management document to be prepared in multiple copies and

available at an economical price, contributed to the office equipment manufacturing industry's capacity to do a complete job."

Although preferring to concentrate on forms and not in the business machine field, Moore Research found a need to invent special equipment to facilitate the handling of forms. Most important was the *Formaliner*, now used by major business machine manufacturers to control alignment and vertical spacing of marginally punched continuous forms.

Chemical research has improved inks, dyes and carbon formulae. To the uninitiated, one carbon paper seems pretty much like another. But executives at Moore still recall with trepidation a time when the carbon in a form used by a major automobile manufacturer melted in the heat of a paint drying room, and the manufacturer lost control of production! At the other end of the temperature scale, Research developed carbon paper which would not crack or become brittle even in subzero weather, for truck delivery receipts and similar outdoor uses. Chemical research in World War II developed synthetic substitutes from noncritical materials to replace imported wax used in carbon paper manufacture.

Today, Moore is continuing a stepped-up program of research into new products and business methods which may prove to be as significant as the sales book and interfolded forms of the past.

Moore Business Forms Named

The sales convention of 1924 marked the start of a 20-year transition period which brought a fundamental change in the forms industry and the companies within the Moore Group. The Federal income tax and social security laws in the United States, as well as the increasing complexities of business operations, imposed immense volumes of paperwork on business and industry. The office equipment industry expanded, and almost all machine installations used large quantities of continuous business forms. Salesman Murphy, who used to think a \$200 sales book order was big business

SOCIAL SECURITY
ACCOUNT NUMBER
000-00-0000
HAS BEEN ESTABLISHED FOR
Frank Smith
WORKER'S SIGNATURE *Frank Smith*
FOR SOCIAL SECURITY PURPOSES • NOT FOR IDENTIFICATION

The largest single order ever prepared by a manufacturer of business forms was executed in 1936. It consisted of 40,000,000 numbered and serialized Social Security cards and application forms. Only the American Sales Book Company at Niagara Falls (now Moore Business Forms) had the technical skill and machinery to fill this order.

Machines were completely redesigned and reconstructed, and a government post office was opened in the factory to get the order out on time.

back in 1920, was now selling continuous forms in thousand-dollar amounts.

An analysis of product sales in 1944 showed that while sales books were still produced in large volume, other business forms constituted 80 per cent of production. It was decided to find a new name common to all forms-producing units and more descriptive of the product and services provided. *Moore Business Forms* was adopted at the beginning of 1945, and names like Pacific Manifolding Book Company, American Sales Book Company, Burt Business Forms, Gilman Fanfold Corporation and Cosby-Wirth Manifold Book Company joined Carter & Company and Carter-Crume Company in the dusty archives of the business forms industry.

A complete line of form products was offered for the first time by any company when the Gilman Fanfold sales force was integrated with other selling organizations of Moore Business Forms. All Moore salesmen were now free to recommend and supply the best and most economical form for any specific need.

IV The Postwar Challenge

"That which man altereth not for the better, Time, the great innovator altereth for the worse." . . . Francis Bacon

SHORTLY AFTER THE END OF WORLD WAR II early in 1946, Executive Vice President W. Norman McLeod became President of Moore Corporation, Limited, and its subsidiary operating companies. Edwin G. Baker, after 27 years as chief executive, continued with the Corpora-

tion as Chairman of the Board, and Samuel J. Moore at the age of 87 became Honorary Chairman. It was an uncertain period in industry, and many executives were waiting for an imminent depression. A year or two, they believed, would be sufficient to meet the stored-up demand for consumer goods, after which the economy would face wide-scale unemployment and an inevitable business downturn. As a precaution, many companies prepared two annual budgets—one based on planned sales, the other on an estimate 15 per cent below the first. But the vitality of the economy had been underestimated; the depression did not materialize. Instead, factories expanded as production climbed to meet insatiable consumer demand, and Canada and the United States were faced with a scarcity of labor.

The labor shortage was particularly severe in offices, accounting departments and wherever typists, bookkeepers or file clerks were required. The postwar popularity of credit transactions and installment buying necessitated accurate record systems on manifold forms, kept up to date by a growing army of clerical personnel. A building boom was followed by the decentralization of department stores and factories into the suburbs, and clerical problems were compounded by home-office requirements for additional copies of records to control branch operations. As the production of peacetime goods expanded and competition became increasingly sharp, managers of business needed facts—about sales, inventory, production costs—and they needed these facts in time to make use of them before they were ancient history. All these factors which aggravated the shortage of clerical personnel also caused an explosive increase in the demand for business forms.

Diagram illustrating the Six-part Moore Speediset form, which includes all necessary records for processing a loan by the Rock River Loan Corporation of Sterling, Illinois. The form is divided into sections, including a 'NOTE' section and a 'Strip Coated Carbons' section. The right-hand portion of Part 1 is detached and discarded after completing the form.

NOTE
ROCK RIVER LOAN CORP.
 508 FIRST AVE.
 STERLING, ILLINOIS
 CAPITAL PAID UP \$100,000.00
 RESERVE FUND \$100,000.00
 ASSETS \$200,000.00
 LIABILITIES \$100,000.00
 PROFIT \$100,000.00
 TOTAL \$200,000.00

Strip Coated Carbons
 CORP.
 CORP.
 CORP.

Introductory Cards
 CARD
 CARD
 CARD

Right Hand Portion of Part 1 is Detached and Discarded After Completing Form

Six-part Moore *Speediset*, which includes all necessary records for processing a loan by the Rock River Loan Corporation of Sterling, Illinois, includes a number of unique features. Strip coated carbon tissue provides for elimination of data on certain parts. The right side of part 1 is detached and discarded, leaving a standard size record and ledger card. The passbook (Part 6) contains three introductory cards which can be used to acquaint friends with the company.

Even with higher clerical salaries and larger staffs, many organizations were still choking under an expanded load of paper work. Corporation and business managers everywhere groped for new methods to speed processing of data while keeping some control over office expenses. But conventional methods and equipment were not enough. Into the vacuum stepped the manufacturers of business machines.

Background of the Business Machine

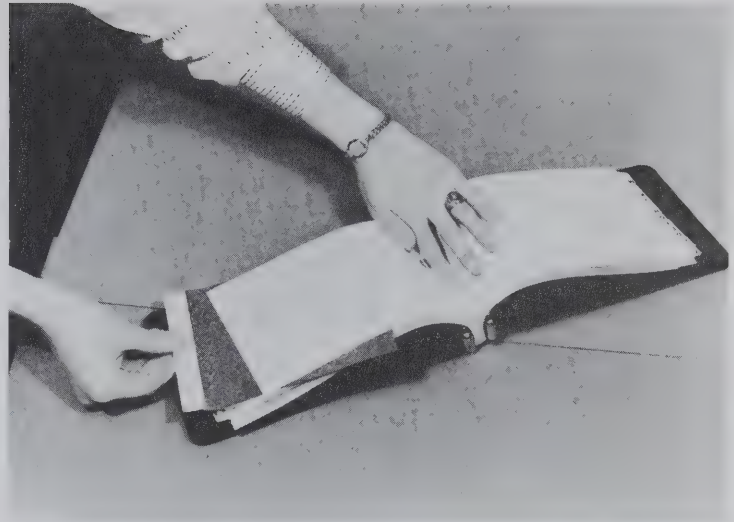
Changes in western civilization are generally preceded from 10 to 20 years or more by the theoretical developments which make these changes possible. The internal combustion engine was many years old before it was used by Charles E. and J. Frank Duryea to operate a "gasoline buggy" in 1893. Even after the successful operation of this vehicle, it was not until 1908 that Henry Ford started mass production of the Model "T." Similar time lags occurred in electricity, radio and television, all of which were laboratory curiosities many years before wide commercial application.

The office equipment industry moved into prominence following World War II with punched-card systems and machines which had their origin in the Hollerith electric tabulator and sorting box used in the United States Census of 1890. The first numerical tabulator-printer was introduced in 1913, and in 1924 the alphabetical tabulator, invented by Powers of Remington Rand, prepared records with alphabetical as well as numerical printing.

In 1934 International Business Machines developed the "Carroll Carriage" which automatically controlled carriage movements, permitting automatic and continuous insertion of information into spaces on continuous forms at high speed without manual carriage control.

Well before World War II, these and other devices had been used for a wide variety of data-processing and statistical applications, but it was not until the postwar bottleneck in clerical-data processing that business machine potentialities were fully and widely recognized by management.

"Office automation" and "data processing" caught fire among management and systems personnel. As a part of management systems, the business machine quickly and accurately pro-



A *Speediset* ledger-statement permits quick removal of the carbon sheets without touching the carbon surface. This book is part of the Moore Simplified Account System, a bookkeeping method to control accounts receivable for use by firms with up to 150 charge-account customers. The system permits posting charge sales to both a customer ledger account and his monthly statement, all with one writing. Statements are designed for folding to permit use with standard window envelopes.

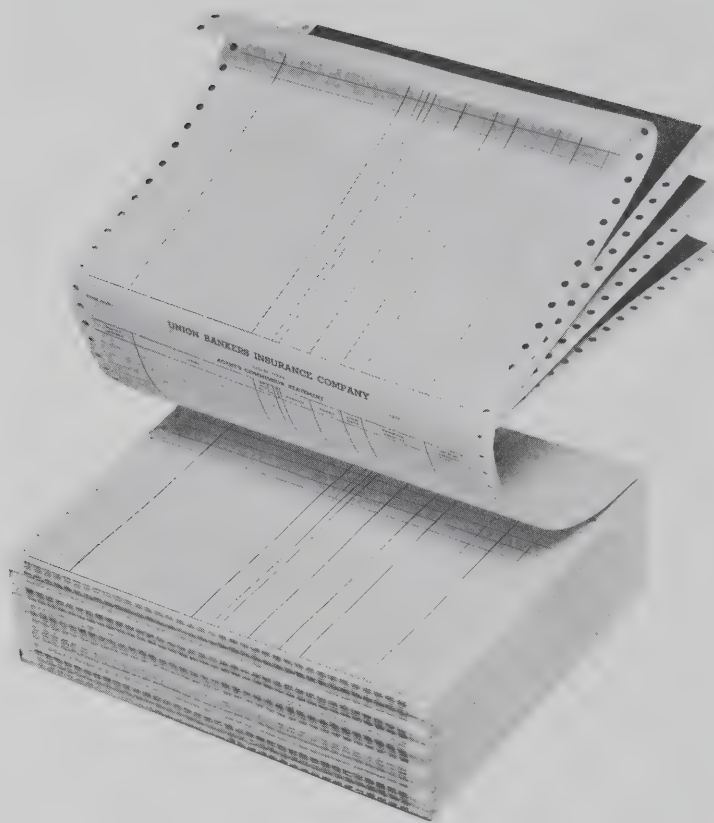
duced the reports and statistical information needed to control the complexities of modern industry.

The major office equipment manufacturers expanded annual sales from three hundred and fifty million dollars in the year following the war to almost three billion dollars in 1957, enlisting inventive genius, productive capacity, financial skill and sales engineering to devise methods for speeding the flow of paper work.

New equipment converted source data like time cards and sales records into the *common language* of business machines — tabulating cards and tape. Once converted, such source data could be mechanically or electronically counted, totalled, analyzed and processed for reproduction on business forms.

Unparalleled Challenge

The expansion of the postwar economy and the wide spread of data-processing installations multiplied potential forms uses and presented an unparalleled challenge to the forms industry to meet the demand for its products.



Speediflo, multiple-part, continuous form with narrow carbon, was designed and produced to meet a need for a precision form to be run through high-speed tabulating and forms-writing equipment. Research, production, financial, sales and service personnel worked together with business machine manufacturers and many long-time Moore customers to perfect this product before its introduction, October 1, 1954. Special interlocking perforations anchor all parts in place including the carbons, permitting high-speed operation, folding and refolding without disturbing alignment. The narrow carbon does not pass over the pins, reducing paper bulk and eliminating carbon paper clogging.

At the head offices in Toronto, President McLeod's group management team formulated plans for postwar development after a series of conferences which included all divisions. A five-part program was developed.

Decentralization: The first decision was to expand—not in the urban centers such as Niagara Falls and Los Angeles where plants were located, but in small places close to large market areas. This was possible because the Corpora-

tion's large volume enabled individual manufacturing plants to specialize in one kind of product. Mr. McLeod recalls, "We sent a few product experts to a small community who recruited people who never before had seen a printing plant. These people were able to acquire the necessary skills because they were not required to manufacture the whole range of products."

The Company, by continuing to be a fair employer and good neighbor, earned the support of the communities into which it moved. Employees received retirement and hospitalization benefits, medical service and group insurance. The attitude of employees is indicated by the fact that at the end of 1957 more than 38 per cent had been with the Company for 10 years or more.

As a neighbor, Moore has encouraged employees to participate actively in community affairs and take part in Community Chests, Red Cross, Boy Scouts and other local activities.

Moore's postwar expansion gained momentum in 1945 with the opening of the Southern Division. This division absorbed the Mid-western Division in 1950 to form the South Central Division with four plants and customers in 23 states. Rediform Division was established at the same time to service dealers throughout the country. The International Division was formed to serve Mexico with a plant in Mexico City; it also serves other Latin American countries and the Caribbean area as well as the Far East.

The company has expanded from 10 manufacturing plants in 1945 to 28 manufacturing units at the close of 1957.

New equipment: To equip new plants and modernize production facilities, more than thirty million dollars has been placed in new plant and equipment during the postwar period.

Sales personnel: To maintain its leadership, Moore expanded its sales force from 700 to 1,600 men in Canada and the United States with offices in every major city of the two countries. Since each Moore salesman deals not only with forms but with the vital control procedures of an organization, each new man had to be trained in business methods and familiarized with the complete line of forms.

Accounting and engineering specialists were

Training. An extensive training program was initiated. Back in 1924 it had been possible to assemble the company's sales force of 160 men for a one-week training period, after which the job was presumed finished. Today, training is a continuing challenge to keep sales personnel informed about daily developments in business machines, data processing and forms applications. Class sessions are held in sales offices and division headquarters throughout the company.

Moore Business Forms has not only responded to but has also contributed to the spread of new methods in the postwar period. For example:

- DELIVERY TICKET

CARD NO

CUSTOMER

VEHICLE LIC NO

DATE

SOLD BY

ITEM	QUANT	STATE TAX	PRICE	AMOUNT
EXTRA <input type="checkbox"/>	<input type="checkbox"/>			
EX MO <input type="checkbox"/> M O <input type="checkbox"/> FLD <input type="checkbox"/>				
TOTAL \$				

452696

Applicable Federal Excise and State motor fuel tax will be added in place including therefor has been received, and will be paid as reported by the Purchaser - it is warranted that it is dangerous to use firearms in carrying here.

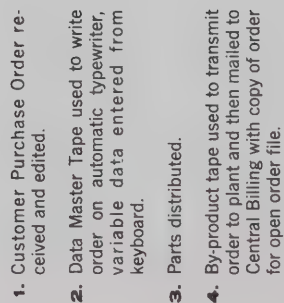
PATENTED MOORE BUSINESS FORMS INC.

RECEIVED QUANTITY SHOWN HEREON

3. Moore systems experts originated and installed data-processing systems to solve many business problems.
4. Moore acquired rights to N.C.R. paper (No Carbon Required) and pioneered its use in manifold forms.

Automated Data Processing (ADP)

Throughout its first three quarters of a century, Moore Business Forms has been speeding up and making automatic the flow and processing of data. Starting with the sales book, auto-



8. Upon receipt of shipping notice open order tape pulled and used to produce invoice.
9. New by-product tape goes to tabulating.

5. Order received on reperforator.

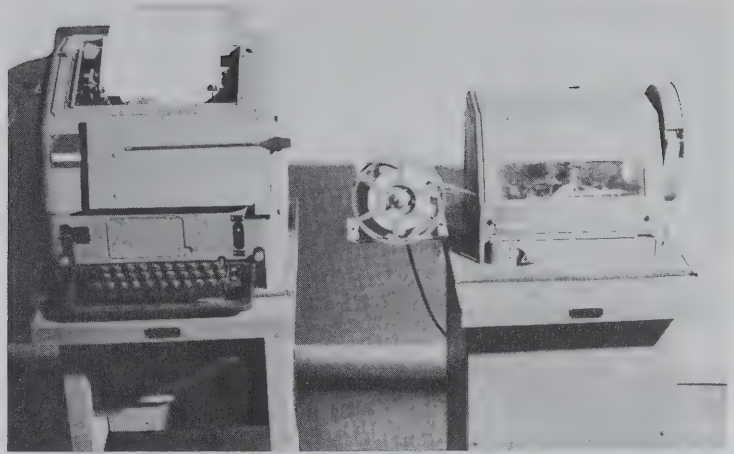
3. Tape used in automatic type-writer to produce plant and shipping copies.

7. Tape used to produce plates for labels.

of the present system, and advantages of the proposed one. Form designs and integration of the system with business machines usually complete the information management needs to evaluate the advantages of the ADP system.

This ADP Flow Chart is a simplified example of charts prepared by Moore to illustrate an automated data processing proposal. ADP proposals often include flow charts of the present and planned systems to simplify comparison, and a brief text outlining the reason for the proposal, shortcomings

Forms printed on *Teletypewriter Model 15* Sending-Receiving Set and tape punched on *Type 14* Tape Reperforator make it possible to prepare payrolls at remote points and permit quick exchange of necessary records.



mated data processing has been an evolutionary development. Today's ADP is characterized by the use of automatic machines such as the Flexowriter typewriter to tape machine, the Underwood tape to card punch, Remington-Rand card to tape converter, and IBM card to tape accounting machine.

There are three stages in any data-processing system, automated or not. The first is the placing of information into the system, or the input. Input is supplied by source records such as sales slips, purchase orders or employee time cards.

The second stage is the actual processing of data, or doing necessary arithmetic, sorting, classifying and comparing. For example, a computer will take the time-card data and perform all the clerical acts in a payroll computation.

The third stage is the output, or placing information on a printed form for use. The printing of payroll checks and records is an example.

Strictly from the product-selling point of view, the forms industry is concerned with only the input and output stages. However, the Moore ADP representative is vitally concerned with the whole system. He has no tie with any machine company. He is free to recommend the best type of equipment for any system and has been quick to apply machine developments to the systems of his customers. Notable among these was the use of automatic tape in typewriters to produce tabulating cards in 1954.

The Moore ADP consultant applies his knowledge of business systems, machines and form design to the needs of his customers. Purposes of a planned system may include simplify-

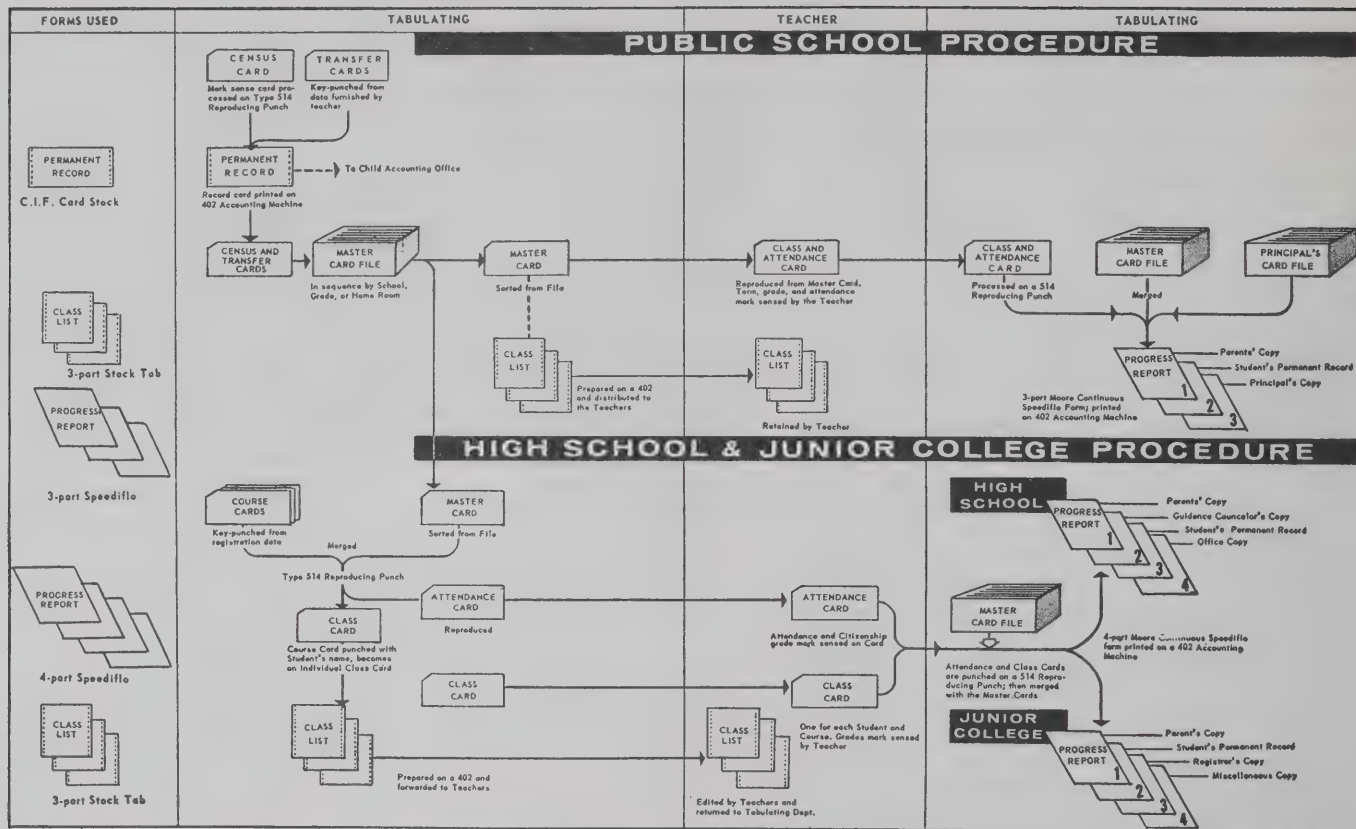
ing paperwork, cutting down expenses, reducing clerical details and increasing accuracy. Just as often, however, the objectives are: improving a company's service by speeding the processing of orders, shipment of goods, billing and notification of order status; and speeding the flow of complete information to management.

The Computer and ADP

More than 6,000 computers are used in government laboratories, universities, industry and business across the continent. Electronic computers used in business differ from more conventional calculating machines in these respects:

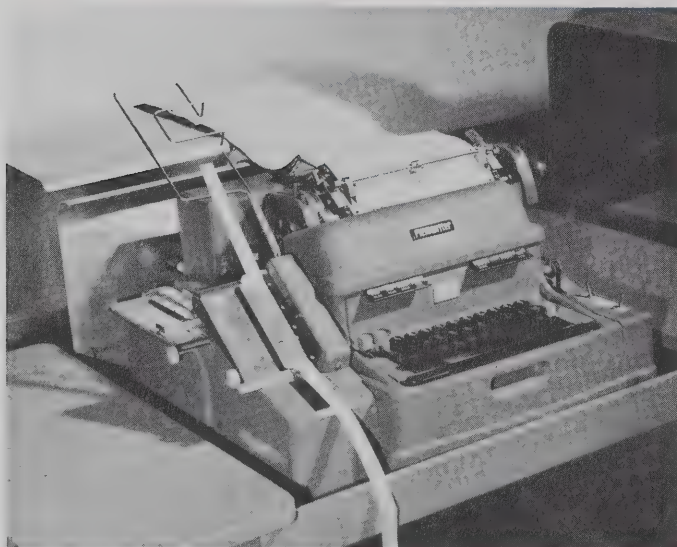
1. A computer will follow a much longer series of operations or "program" than the mechanical calculators. This series of operations is stored in the "memory" or magnetic storage units of the machine.
2. A computer can take two numbers, compare them and follow alternate procedures depending upon which is the larger. Thus, a computer can modify its own instructions.

These two features, together with sufficient storage or "memory" capacity, enable a computer to do almost any clerical task at lightning speed once each step has been properly programmed. In operation, these machines are similar to previously used tabulating or calculating machines. Their rapid output is usually placed



After discovering that a child's name is written close to 1,000 times during his 12 years in the public schools, the School District in Jackson, Michigan, installed this ADP system with the aid of Moore's Jackson representative. The system sim-

plifies the teacher's job by automatically placing permanent information on class lists, course cards, attendance cards, report cards and permanent school records.



The *Flexowriter* records typed information on a punched paper tape. It can also type automatically at 100 words per minute from a similar tape. A key machine in many data-processing systems, the *Flexowriter* is also available with the *Moore Formaliner* or *Vertical/Spacer*.

on magnetic tape for subsequent printing on forms.

From magnetic tape, the computer's output is recorded by high-speed printers, which have changed form-writing speeds from 100 or 150 lines a minute to 600, 900 or even more than 1,000 lines per minute.

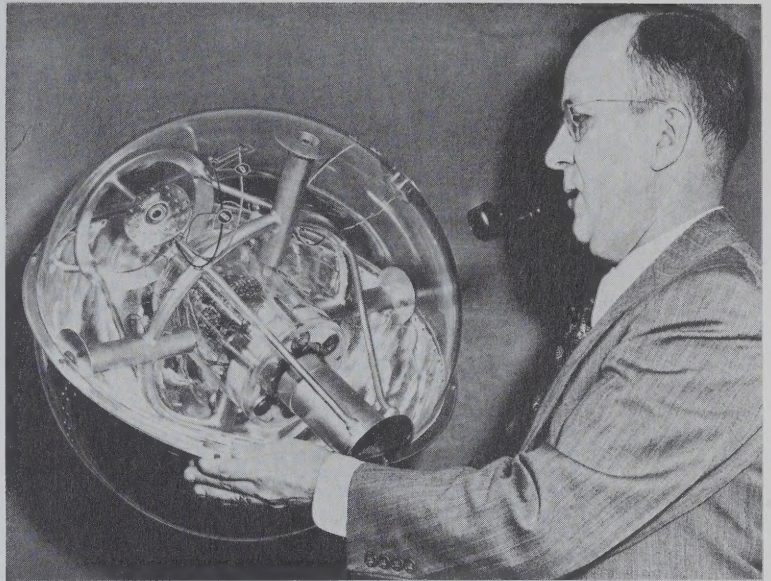
The question is asked, "Will the computer handle electronically data functions which now require forms?" The experience of the forms industry indicates that very often, intermediate reports on business forms can be eliminated. At the same time, the high-speed operation of the computer makes possible a variety of new reports, adding substantially to forms use.

The Future

Business machines and data processing are progressing so rapidly that predictions for the

Dr. John P. Hagen, director of Project Vanguard, is shown here with a full-scale cutaway model of Vanguard I, the Navy's earth satellite now spinning in outer space. Millions of signals, sent by the satellite's radio and decoded at tracking stations all over the world, are fed into electronic computers at data processing centers, where the orbit and other data of interest to scientists is computed. The data is fed through magnetic tape to high speed printers, which record it on continuous forms.

The IBM 704 computer in use at the satellite tracking center in Washington, D. C. is shown below. A satellite model hangs from the ceiling above it.



future are unsafe. However, some developments are already becoming clear. Although instructions to data-processing machines today are issued by outside sources, tomorrow and the coming age will be characterized by forms which contain instructions to the machine. The instructions will be on forms printed with magnetic ink, electricity-conducting ink, tabulating devices and printed numbers which can be sensed by machines. An example is already furnished by the Bank of America's use of equipment which senses figures printed on travelers' checks in magnetic ink and automatically processes these checks without clerical handling.

Professionally designed forms, suitably con-

structed for the high speed and growing complexity of business machines, will become increasingly important. Looking beyond existing methods and machine designs, Moore will continue to seek new accounting and record-keeping practices of all kinds, so as to determine the best ways to process data and make it quickly available to management.

In this development, Moore will work closely with business machine manufacturers, management consultants, systems engineers and accountants.

In 1937, Moore President E. G. Baker made a statement which is still true today and likely to remain so in the future:

"We have here a business that is not huge like the steel industry, nor spectacular like the motor industry, but we have a useful, honorable, clean business, rendering an important service to the life of the country, bearing a fine reputation in the business world, of which we may all be proud."



Moore Corporation, Limited: Board of Directors, late in 1957. *Left to right:* Robert A. Laidlaw, Toronto, chairman, National Trust Company, Limited; Alan H. Temple, New York, executive vice-president, The First National City Bank of New York; Graham F. Towers, Ottawa, former governor, Bank of Canada; W. Norman McLeod, Toronto, chairman, Moore Corporation, Limited; Edwin G. Baker, Toronto, chairman, The Canada Life Assurance Company; Thomas S. Duncanson, Toronto, president, Moore Corporation, Limited; John S. D. Tory, Q.C., Toronto, Tory, Arnold, Wardlaw, Whittaker & Tory; R. Samuel McLaughlin, Oshawa, chairman, General Motors of Canada, Limited; J. Stuart Fleming, Niagara Falls, N. Y., director of research from 1931 to 1954, Moore Corporation, Limited.

Directly under the portrait of Samuel J. Moore is Edwin G. Baker, who succeeded Moore as chief executive in 1929 and continued in that post until 1946. To his leadership may be attributed the unification of the organization; the resolution of personal conflicts which inevitably arise from mergers; and advancement of a personnel policy far ahead of its time and based on an appreciation of human values. At the same time, he supported the autonomy of company units within a broad framework of overall policy set by democratic decisions.

To the Corporation structure, W. Norman McLeod brought financial stability and profit-consciousness. He introduced procedures which made possible the quick evaluation of operating efficiency. During his tenure, the decision to build new plants in small communities, each specializing in a specific type of form, minimized the machinery and the personnel training required to operate new units. The good will of each plant community was assured by continuing the policy of good working conditions and fair dealings with employees.

Thomas S. Duncanson succeeded to the presidency in 1954, 43 years after he started in the Corporation's Toronto office in 1911. Building on the legacy of his predecessors, he has kept his eye on the growing horizons of the forms industry. Already investment in research, machinery and new plants for expansion has exceeded previous records and has advanced the Corporation's leading position in the industry.

The four presidents of Moore Corporation, Limited, pictured here have totalled more than 200 years' service.

THE MOORE STORY

Business Control Through Multiple Copy Forms

LOCATION OF MANUFACTURING PLANTS

OF MOORE SUBSIDIARIES

